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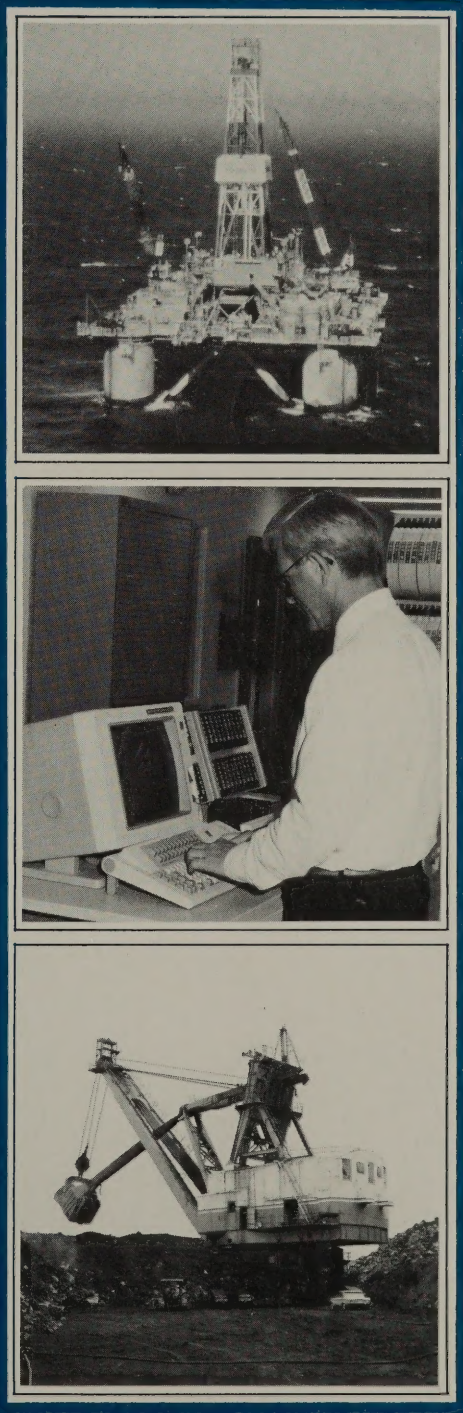
Mineral Revenues 1980-89

Report On Receipts From Federal And Indian Leases



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U.S. Department Of The Interior
Minerals Management Service
Royalty Management Program

Cover Photographs:
Top, Outer Continental Shelf platform, offshore California.
Center, Computer operations in RMP headquarters.
Bottom, Surface coal operation.
(Photo courtesy Oklahoma Geological Survey.)

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Report On Receipts From Federal And Indian Leases

U.S. Department Of The Interior
Minerals Management Service
Royalty Management Program

U.S. Department Of The Interior
Manuel Lujan, Jr., Secretary

David C. O'Neal, Assistant Secretary
Land and Minerals Management

Minerals Management Service
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Exploratory oil rig.
(Photo courtesy Texaco, Inc.)

Foreword

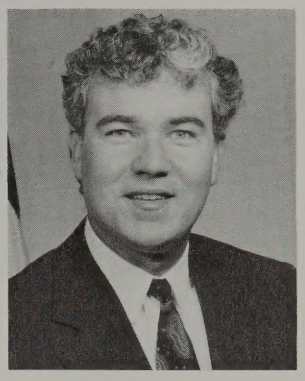
The Minerals Management Service (MMS) is pleased to present a 10-year summary of receipts from Federal and Indian mineral leases for the period 1980-89. The decade of the 1980's was a time of sweeping change in the minerals industry. Social and economic forces set in motion a series of events that materially changed the production and consumption of fossil fuels and the price structure for petroleum products throughout the world. Many of these changes directly affected receipts from royalties, rents, and bonuses on Federal and Indian lands.

Revenues from Federal and Indian mineral leases exceeded $69 billion during the 10-year period. This was greater than all cumulative mineral receipts collected during the prior 6 decades, dating back to the Mineral Lands Leasing Act of 1920. Mineral revenues serve as one of the largest sources of non-tax income to the Federal Government.

The Department of the Interior, cognizant of its responsibility for public lands and natural resources, created MMS in 1982. The MMS administers the Offshore Minerals Management Program and the Royalty Management Program (RMP). The RMP is responsible for ensuring that all revenues from mineral leases are accurately collected, verified, and disbursed to the appropriate recipients in a timely manner and in accordance with existing laws, regulations, and lease terms.

The RMP aggressively pursued a series of initiatives from 1982-89 to improve accountability for the Nation's mineral revenues. Three automated systems were successfully designed, tested, and implemented to collect and disburse revenues and to collect production and other operational data to ensure that payments to the Government are accurate.

Revenue compliance efforts conducted through audit and other royalty underpayment detection programs have generated over $651.3 million during the 8-year period. This included $563.2 million in additional royalties, late payment interest, liquidated damages, and refund denials collected through audit programs administered by the RMP Royalty Compliance Division from Fiscal Years 1982-89. Automated exception processing programs, implemented in 1985, produced another $49.8 million of the total figure for late payments, late reporting, and failure to report. Comparisons between sales reported by payors and production reported by operators to RMP automated systems yielded an additional $38.3 million of the total.

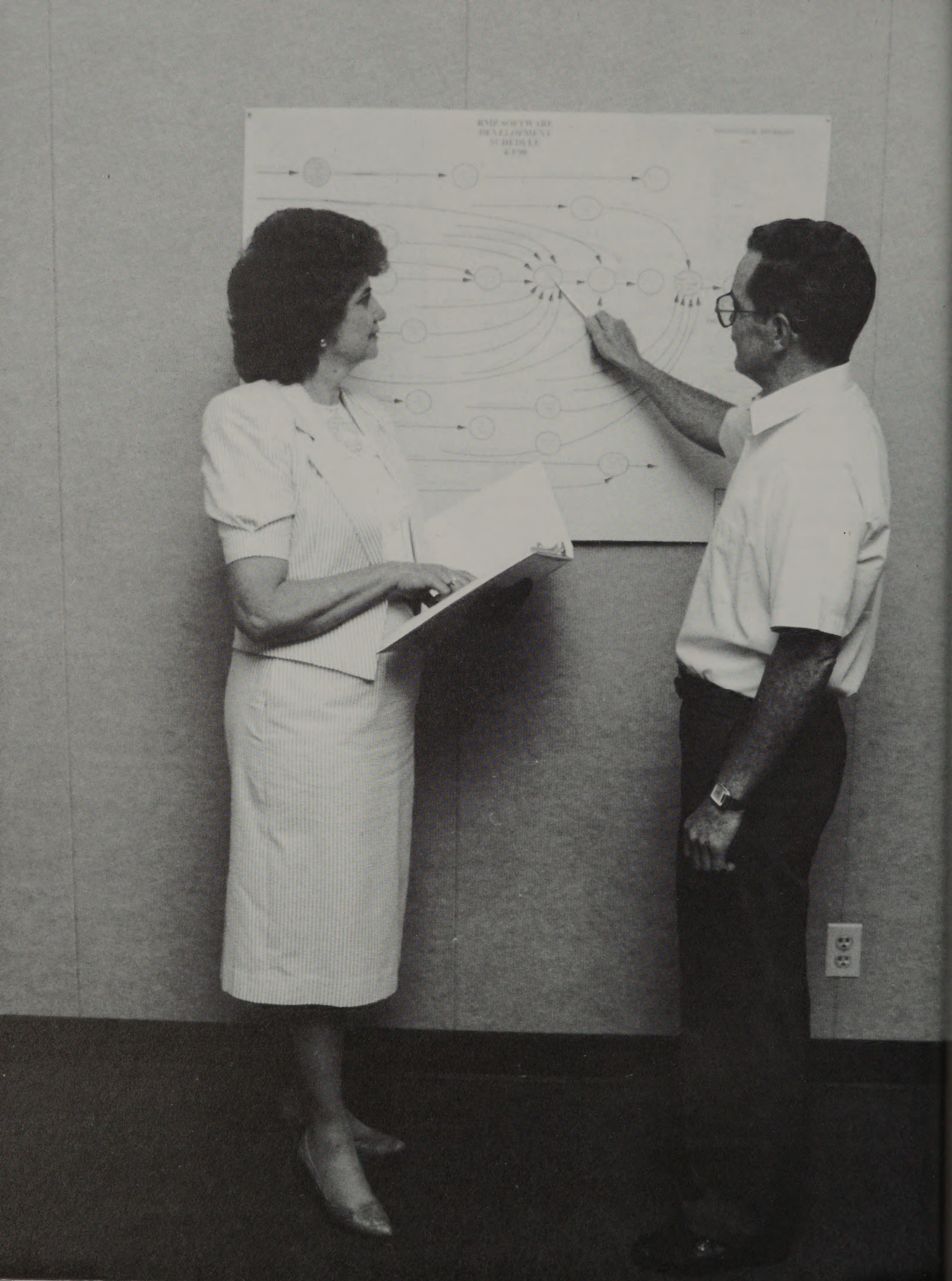


The MMS conducted an extensive outreach program to involve our constituents in decisions affecting mineral production and revenues. The Secretary of the Interior chartered a Royalty Management Advisory Committee (RMAC) in 1985. The RMAC, composed of 31 representatives from States, Tribes, and the minerals industry, addresses key RMP issues and advises the Secretary on matters that concern royalty participants. The RMAC has addressed a number of topics, including RMP accounting and auditing systems modifications, product valuation, and improvement of services to the Indian community.

The MMS remains committed to the protection of the environment in conjunction with a program of resource development in our stewardship of the Nation's mineral resources. Events at the beginning of the 1990's suggest that the uncertainty and volatility that characterized the 1980's may continue well into the current decade. Disruptions in the supply of oil and attendant price increases for petroleum products indicate that mineral receipts from oil, gas, and coal will continue to be an important source of revenue to the Federal Government, the States, and Indian Tribes and allottees. The MMS remains positioned and committed to provide quality service that is responsive to the needs of our constituents.

Barry Williamson

BARRY A. WILLIAMSON
Director



Mineral Revenue Management in the 1980's

A review of revenues from Federal and Indian mineral leases during the 1980's requires a brief understanding of the international and domestic events that shaped petroleum production and pricing during the past 2 decades. Many of the trends experienced on a national level were observed on Federal and Indian lands. The effect of these events on royalty, rent, and bonus income was significant and will continue to influence mineral revenues into the 1990's.

International and Domestic Markets in the 1970's

International demand and production of oil rose at an annual rate of 10 percent from 1970 to 1973 as the world enjoyed sustained economic growth. That growth ended abruptly in 1973 following an oil embargo by selected members of the Organization of Petroleum Exporting Countries (OPEC) in response to the Yom Kippur War in the Middle East. The average annual West Texas Intermediate crude oil price in the United States increased 168 percent, from $3.87 per barrel in 1973 to $10.37 per barrel in 1974 (figure 1).

Oil demand, supply, and price experienced moderate growth in 1976-78 as economies adjusted to higher oil prices. Nations with petroleum reserves developed their exploration and production capabilities.

The Iranian revolution produced a 6-month suspension of Iranian oil production in late 1978 extending through the spring of 1979. Other OPEC member nations reduced production to further stimulate prices. The average annual West Texas Intermediate crude oil price rose over 150 percent, from $14.85 per barrel in 1978 to $37.38 per barrel in 1980 (figure 1).

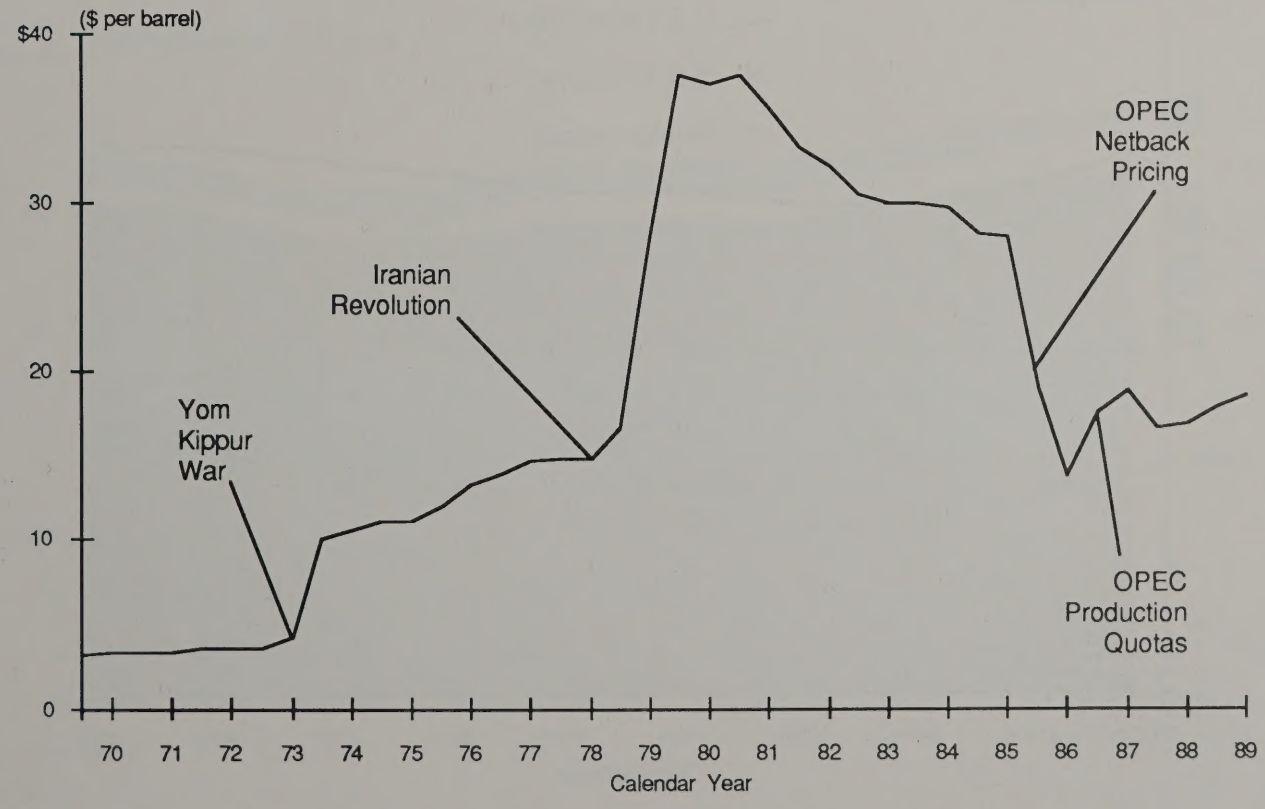


Figure 1. --- West Texas Intermediate crude oil prices, 1970-89
(Source: Oil and Gas Journal Energy Database)

Employees at RMP headquarters in Lakewood, Colorado, review software development schedule for automated systems improvement project.

International and Domestic Markets in the 1980's

A combination of factors in the 1980's began to adjust prices and change the pattern of world oil production. Record oil prices in 1980-81 created a worldwide slowdown in economic growth resulting in a decline in consumption. The cumulative effects of energy conservation programs further reduced demand, particularly in the United States (figures 1, 2, and 3).

While demand fell, the potential supply of oil grew as independent oil-producing nations accelerated efforts to increase exploration and production. Declining demand and increasing supply drove prices down from 1981 through 1985 (figure 1).

The OPEC nations, who cut production in 1980 to stimulate prices, now cut production in an effort to stabilize prices to compensate for the continued growth in supply from independent oil-producing states. A series of OPEC meetings in 1984-85 established production ceilings for each member of the cartel in an effort to reduce the abundant supply of oil on the world market. Production in some member nations in 1985 exceeded production accords, reducing the effectiveness of the cartel's efforts.

In the Fall of 1985, a leading OPEC producer materially increased production and instituted a pricing method involving product netback terms. Under this process, producers of finished petroleum products were guaranteed a fixed profit margin. The price of oil would be discounted, if necessary, to ensure the profit margin. The effect of the production and pricing initiative created a decline in crude oil prices that was observed in the first two quarters of 1986. During this period, the average annual West Texas Intermediate crude oil price fell 41 percent, from $28.08 per barrel in 1985 to $16.44 per barrel in 1986 (figure 1).

The OPEC members met in the summer and again in December of 1986, producing an agreement to establish production quotas to maintain international oil prices at approximately $18 per barrel. The average annual West Texas Intermediate crude oil price ranged from $15-$19 per barrel throughout the balance of the decade (figure 1).

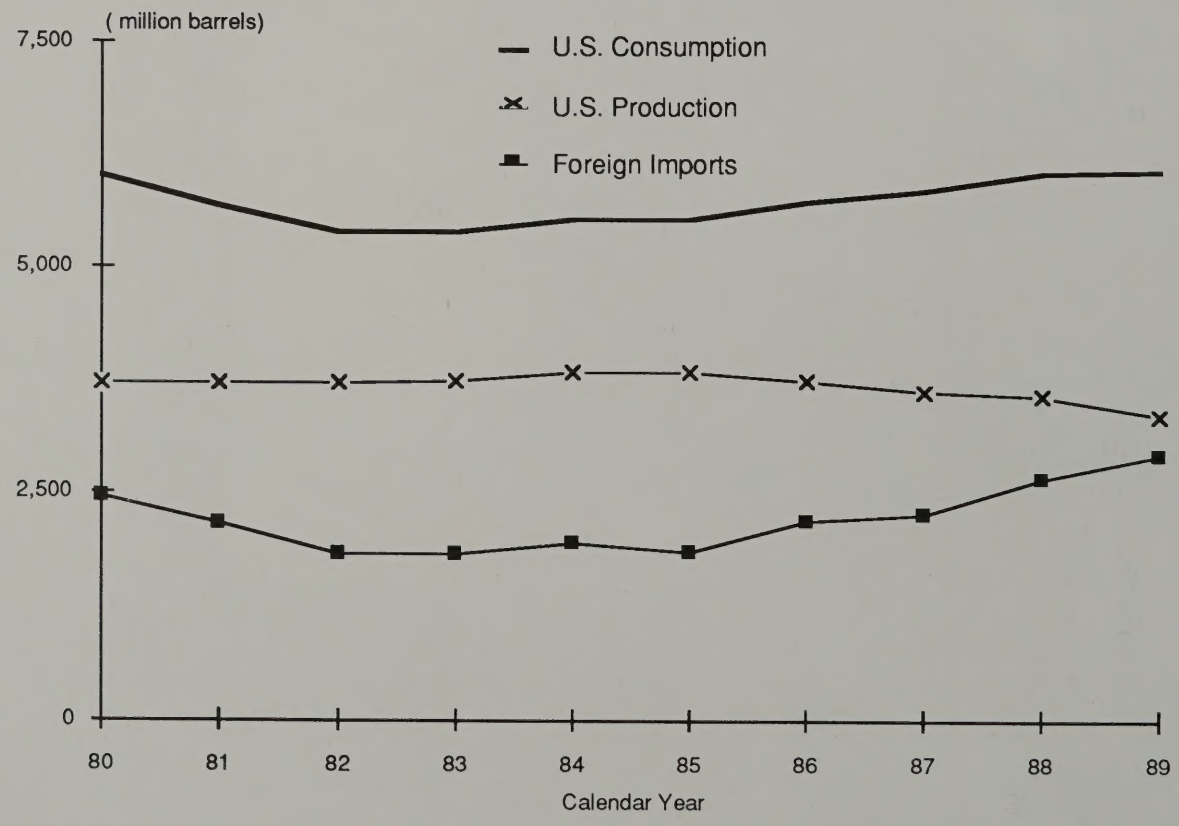


Figure 2. --- U.S. oil consumption, domestic production, and foreign imports, 1980-89
(Source: British Petroleum Statistical Review of World Energy, June 1990)

Federal and industry analysts predicted in 1986 that pricing measures in effect at the end of the year would produce three results:

1.) Demand and consumption of oil in the United States would grow.

2.) The production capability of the U.S. petroleum industry would be eroded as the result of low prices.

3.) Reliance on foreign imports of oil by the United States would increase.

Events from 1986-89 substantiated the projections. Oil consumption in the United States grew 5.8 percent, from 5.7 billion barrels in 1986 to 6.1 billion barrels in 1989. Production of oil in the United States fell 10.3 percent, from 3.7 billion barrels in 1986 to 3.3 billion barrels in 1989. Foreign oil imports rose 32.7 percent, from 2.2 billion barrels in 1986 to 2.9 billion barrels in 1989 (figure 2).

The nature of energy consumption shifted in the United States over the course of the decade. The Nation consumed nearly as much oil and gas at the end of the decade as it did at the beginning of the period. Oil consumption began and ended the decade at approximately 5.8 billion barrels. Gas consumption fell 4.4 percent during the period, from 3.7 billion barrels of oil equivalent in 1980 to 3.6 billion barrels in 1989. Coal consumption, in contrast, grew 22.9 percent, from 2.8 billion barrels of oil equivalent in 1980 to 3.5 billion barrels in 1989. The growth in coal consumption was more pronounced in the last 5 years of the period as public utility companies expanded the use of alternative fuels. Nuclear and hydroelectric energy consumption also increased during the 10-year period (figure 3).

Federal and Indian Mineral Revenues in the 1980's

Nearly $69.8 billion in royalties, rents, and bonuses was collected from Federal and Indian mineral leases administered by the Department of the Interior from 1980 through 1989. Offshore mineral leases accounted for 84.1 percent of those revenues (tables 1 and 2).

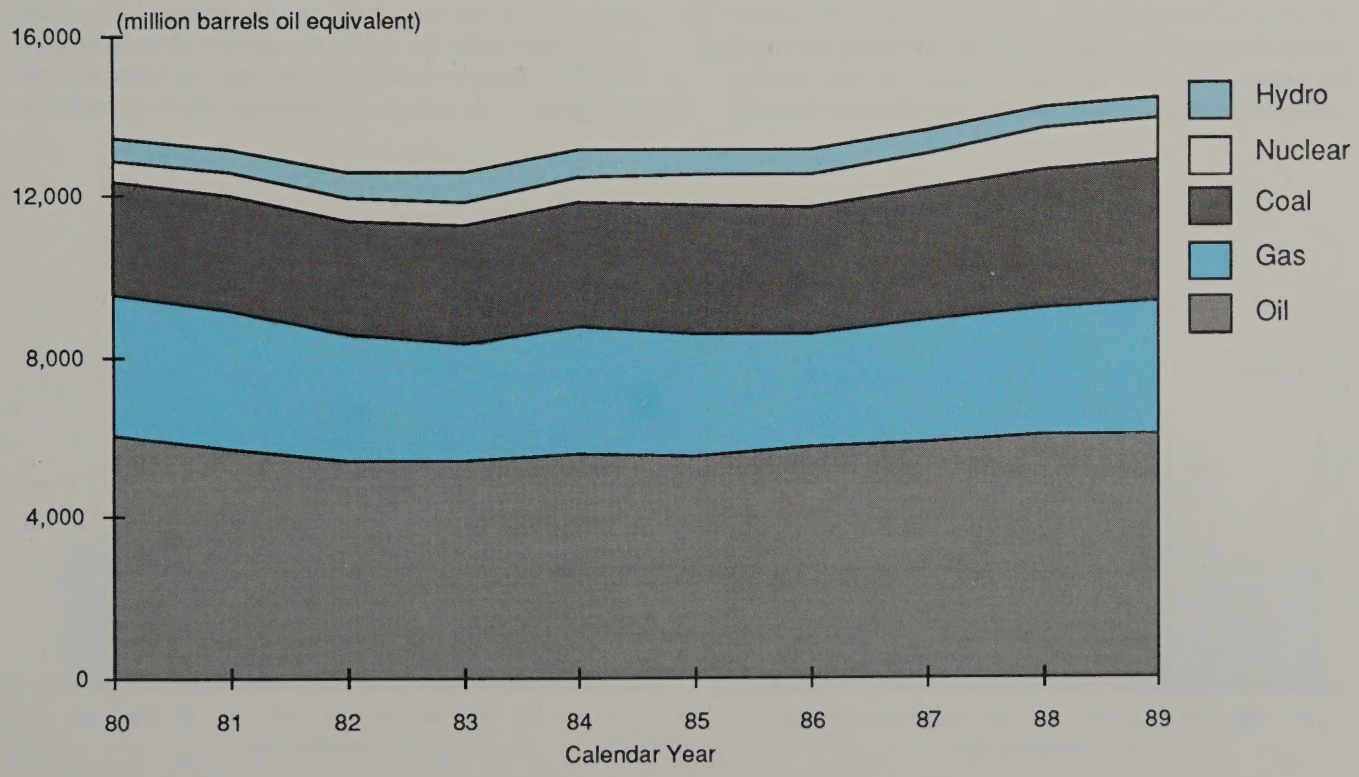


Figure 3. --- U.S. energy consumption by commodity, 1980-89

(Source: British Petroleum Statistical Review of World Energy, June 1990)

Over $39.2 billion in royalties, or 56.2 percent of total revenues, was collected during the decade. Bonuses from competitive lease sales equaled $29.3 billion, or 42 percent of all receipts. Rents accounted for an additional $1.3 billion, or 1.8 percent of the total (tables 1 and 2, and figure 6).

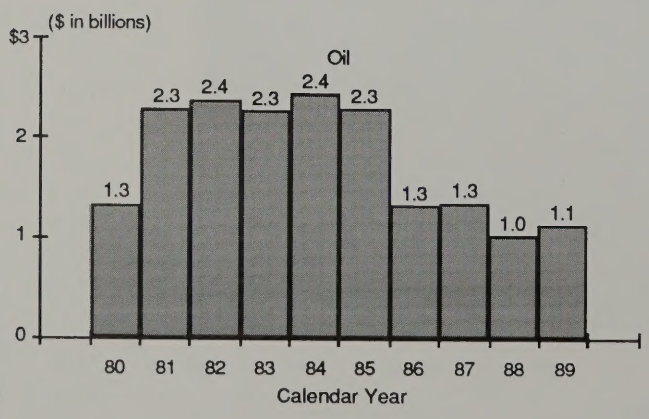
Revenues from all Federal and Indian mineral leases totaled $54 billion from 1980-85, an average of $9 billion per year, when oil prices ranged from $28 to $38 per barrel. Average annual revenues fell 56.3 percent in the last 4 years of the decade, to $3.9 billion per annum, following the decline in the international oil price structure in the first two quarters of 1986 (tables 1 and 2, and figures 1 and 6).

Federal and Indian oil, gas, and coal production followed national trends throughout the decade. Oil production on Federal and Indian lands averaged 508.5 million barrels per year and oil royalties averaged $2.2 billion during 1980-85, when oil prices were at record levels. Oil production fell less than 1 percent, to 507.9 million barrels per year during the period 1986-89; however, average annual oil royalties fell 44.2 percent to $1.2 billion during the same period because of the decline in oil prices (table 2 and figures 4 and 7). Oil production on Federal and Indian lands accounted for 16.4 percent of total oil produced in the United States from 1980 through 1989 (table 4 and figure 9).

Gas production on Federal and Indian lands averaged 5.6 billion Mcf for the first 6 years of the decade, with gas royalties at $2.2 billion per annum. Average annual gas production dropped 7.6 percent to 5.2 billion Mcf in the following 4 years; however, gas royalties plummeted 27.1 percent to $1.6 billion per year, again because of the decline in petroleum prices (table 2 and figures 4 and 7). Gas production on Federal and Indian leases represented 30.2 percent of all gas produced in the United States from 1980 through 1989 (table 4 and figure 9).

Coal production on Federal and Indian lands reflected the accelerating growth experienced on a national level in the last half of the decade. The majority of the growth occurred on Federal lands. Collective Federal and Indian coal production averaged 124.5 million short tons per year, generating an average annual royalty of $60.2 million from 1980 through 1984. Annual average coal production jumped 65.7 percent over the next 5 years, to 206.2 million short tons; however, coal royalties rose more than 200 percent, to $181.9 million per annum (table 2 and figures 4 and 7). The significant rise in royalties is a function of the increased demand for coal and the renegotiation of a number of coal leases from a cents-per-ton basis to an ad valorem basis during the period. Coal production on Federal and Indian lands equaled 18.8 percent of total coal produced in the U.S. from 1980 through 1989 (table 4 and figure 9).

Royalties from minerals other than oil, gas, and coal increased in the last half of the decade. Royalties from other minerals during the period 1980-84 totaled $321.8 million, or an annual average of $64.4 million per year. Royalties increased 47.5 percent to



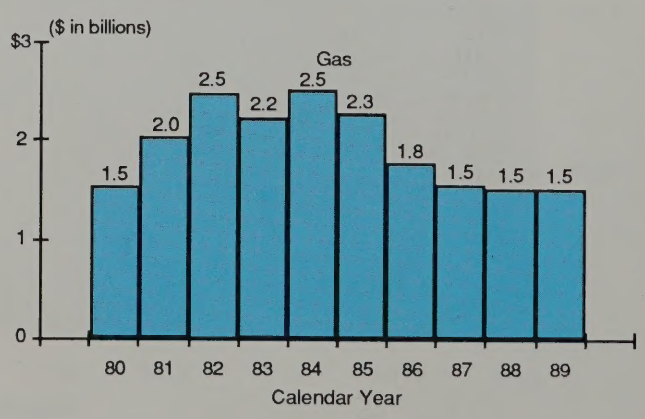


Figure 4. --- Royalties from Federal and Indian mineral leases, 1980-89

$94.9 million per annum from 1985 through 1989. Significant royalty gains were produced from carbon dioxide, copper, gas plant products, geothermal and heated water sources, phosphate, sand and gravel, and sulfur (tables 2 and 3, and figure 4).

Production of a select number of minerals other than oil, gas and coal on Federal and Indian leases accounted for a significant percentage of total U.S. production during the decade. Lead production on Federal and Indian lands represented 69.8 percent of total U.S. production, potash production equaled 80.2 percent, and sodium production totaled 44.6 percent during the period (figure 9).

Participation in the royalty-in-kind (RIK) program reached its zenith in 1981 when oil prices were at $35-$38 per barrel. The RIK royalty value for both onshore and offshore oil exceeded $1 billion during the year, or 43.9 percent of the nearly $2.3 billion in oil royalties collected by the Federal Government.

Interest in the RIK program fell over the decade as oil prices declined and low-priced crude oil became more available on the open market. The decline in participation was particularly significant following the sharp reduction in oil prices in 1986 (table 18).

Evolution of the Royalty Management Program

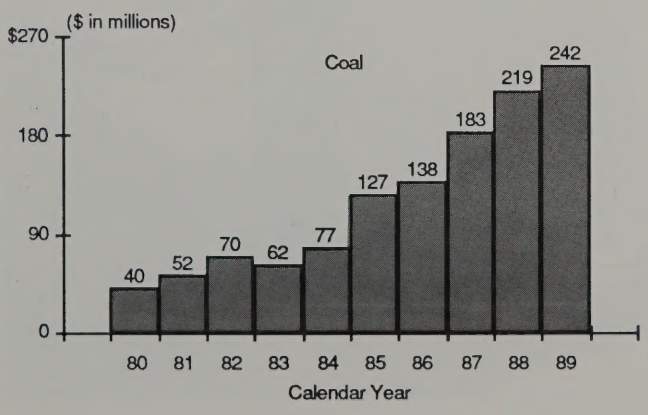
The Mineral Lands Leasing Act of 1920 established the procedures for the development of selected minerals on public lands and for accounting of revenues associated with those minerals. The Secretary of the Interior was authorized to promulgate rules and regulations to implement and enforce the Act.

The collection and disbursement of mineral revenues by the Department was administered from 1920 through 1981 by a small royalty accounting program within the U.S. Geological Survey (USGS). The program was staffed at both USGS Headquarters and regional offices by a limited number of accountants and clerks who were supervised by scientists and engineers responsible for all mineral leasing activities on Federal and Indian lands.

Royalty revenues, excluding bonuses and rents, totaled $354 million from 1920 to 1950. The Nation's energy consumption began to accelerate in the 1950's, creating a corresponding demand for domestic mineral production. Federal and Indian mineral royalties rose over the next 40 years, from $757 million during the period 1951-60, to a projected $39 billion over the period 1981-90. (figure 5). The requirements for collection, accounting, and disbursement services from the royalty program rose in a corresponding manner.

Former Secretary James G. Watt chartered a blue-ribbon panel, the Commission on Fiscal Accountability, chaired by David F. Linowes, to conduct a comprehensive overview of royalty management in July 1981. The Linowes Commission issued its report to the Secretary on January 21, 1982.

The report contained 60 recommendations addressing



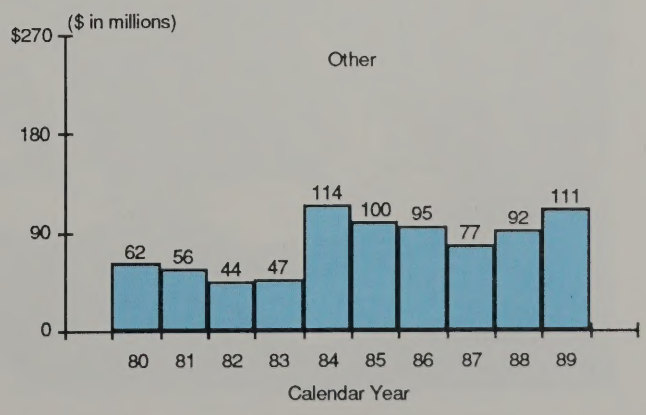


Figure 4. --- Royalties from Federal and Indian mineral leases, 1980-89 (cont.)

internal controls, site security, enforcement, relationships with States and Tribes, and organizational issues. Former Secretary Watt reorganized the royalty management function within the Department consistent with the recommendations.

The Minerals Management Service (MMS) was established on January 19, 1982, as a permanent organization within the Department under the authority of the Assistant Secretary for Energy and Minerals, now titled the Assistant Secretary - Land and Minerals Management. The MMS administers the Offshore Minerals Management Program and the Royalty Management Program (RMP).

The RMP was assigned responsibility for ensuring that all revenues from Federal and Indian mineral leases are accurately collected, verified, and disbursed to the appropriate recipients in a timely manner in accordance with existing laws, regulations, lease terms, orders, and notices. The RMP was further assigned responsibility to provide support for technical lease management functions.

Royalty accounting operations were phased into the RMP Headquarters in Lakewood, Colorado. Resident field audit staffs were retained to provide effective audit coverage in more than a dozen cities where prominent royalty payors maintain accounting centers.

Royalty Underpayment Detection Programs

The MMS developed a number of audit and other royalty underpayment detection programs to ensure compliance with mineral leasing laws and regulations. These programs collectively produced over $651.3 million in additional royalties, late payment interest, liquidated damages, and refund denials from Fiscal Years (FY) 1982-89.

Audit efforts administered by the RMP Royalty Compliance Division (RCD) generated $563.2 million of the total detection program figure over the 8-year period. This included $492.5 million produced through company audits, lease audits, and Office of Inspector General lookback audits performed by RCD auditors, and $70.7 million collected from the cooperative State and Tribal audit program. The State and Tribal audit program consists of funded and unfunded cooperative agreements and funded delegations of authority with the Department.

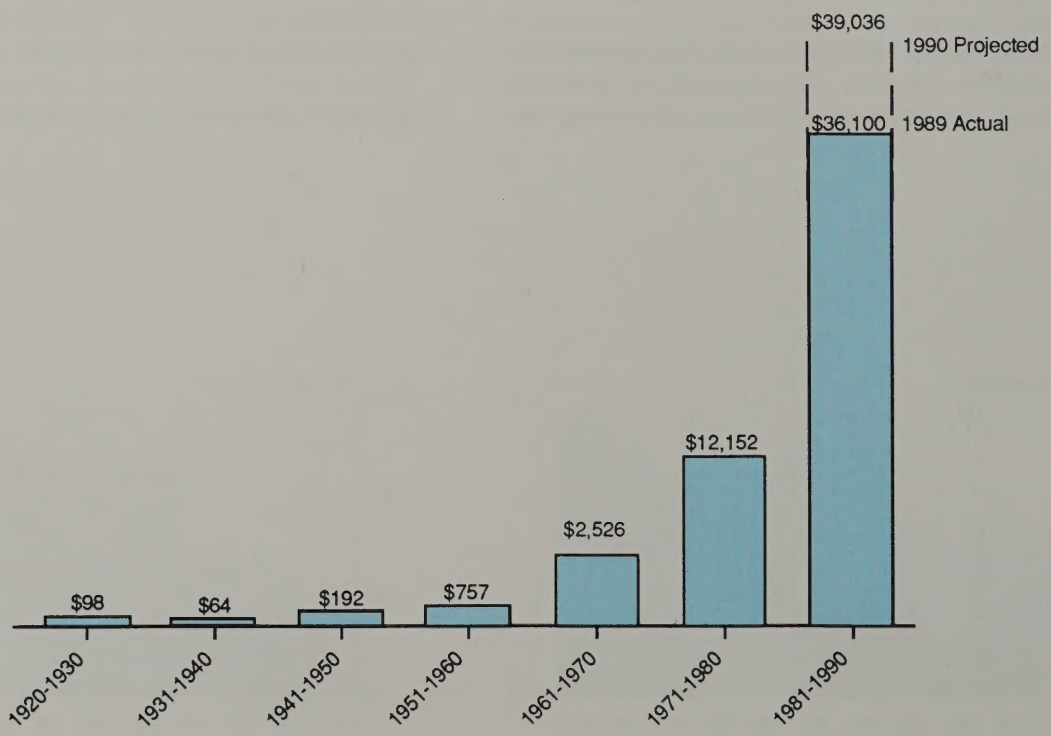


Figure 5. — Royalties, in millions, from Federal and Indian mineral leases, Calendar Years 1920-90

Automated exception processing programs, implemented in 1985, provided $49.8 million of total detection program collections during the period FY 1985-89. Liquidated damages and interest were assessed for late payments, late reporting, and failure to report.

A comparison of sales reported by payors and production reported by operators to RMP automated systems was initiated in 1985 for all Federal offshore oil and gas leases. Federal onshore solid mineral leases and a limited number of Federal and Indian onshore oil and gas leases were added to the production accounting system in 1986. Conversion of all remaining onshore oil and gas leases to automated production accounting was completed in 1989. The program contributed $38.3 million of total detection program receipts through the end of FY 1989.

Management Improvement Efforts

The MMS has pursued a series of program initiatives over the last 8 years to improve accountability for the Nation's mineral revenues. A summary of some of the more important achievements follows.

1982

A comprehensive audit of Federal and Indian lessees was initiated through RCD in 1982. Eight States, including California, Colorado, Montana, Nevada, New Mexico, North Dakota, Utah, and Wyoming, and three Indian Tribes, the Jicarilla Apache Tribe, the Navajo Nation, and the Southern Ute Tribe, joined with RCD in the cooperative State and Tribal audit program. The program provides for a common effort in the examination of a number of Federal and Indian leases within the boundaries of the respective States and Tribes.

Approximately 500 royalty interest holders were converted from lease-level reporting procedures to a more detailed accounting method at the royalty payor level. The conversion facilitated implementation of the proposed automated computer system scheduled for operation in 1983.

1983

The Federal Oil and Gas Royalty Management Act of 1982 (FOGRMA) was signed into law by the

Employees in the RMP Systems Management Division develop, maintain, and operate RMP automated systems.

President in January 1983 as a legislative outgrowth of the recommendations of the Linowes Commission. The FOGRMA provides the Department with a wide range of tools to ensure that mineral revenues generated on Federal and Indian lands are collected and disbursed in an efficient manner. Section 104 of FOGRMA requires monthly payment of mineral revenues to States whose boundaries encompass Federal mineral leases. Tribal and allottee revenues are processed and distributed to the Bureau of Indian Affairs (BIA) as quickly as possible after receipt. Section 105 of FOGRMA requires that detailed explanations of the revenues are to be forwarded to the States, Tribes, and allottees in conjunction with the payments.

In February 1983, the Secretary dedicated the new Auditing and Financial System (AFS), an automated system designed to collect and disburse royalties and rents from producing leases on Federal and Indian lands. By the end of the calendar year, over $3 billion had been collected and disbursed.

1984

The Bonus and Rental Accounting Support System (BRASS) became operational in February 1984. The BRASS assumed accounting responsibility for all rental payments and bonus bids from nonproducing leases transferred to MMS from the Bureau of Land Management in October 1983.

The RMP successfully completed a test program for its Production Accounting and Auditing System (PAAS) during the year. The PAAS is an integrated system of both manual and automated applications designed to collect production and other operational data and to ensure that royalties are paid on 100 percent of reported production.

1985

Audit efforts continued to expand in 1985. The Secretary established contracts that provided audit funding under the provisions of Section 205 of FOGRMA to eight States, including Alaska, California, Colorado, Montana, North Dakota, Oklahoma, Utah and Wyoming. The Secretary further established a contract which provided audit funding to one Indian Tribe, the Navajo Nation, under Section 202 of FOGRMA. In addition to the funded agreements, two States, Nevada and New Mexico, and two Indian Tribes, the Jicarilla Apache and the Southern Ute Tribes, entered into unfunded joint audit agreements.

Automated exception processing was initiated in FY 1985 to collect liquidated damages and interest for erroneous reporting, late reporting, and failure to report mineral lease revenues.

The PAAS began full-scale operations in February 1985, collecting and processing monthly production data from all Federal offshore oil and gas leases. A comparison between sales reported to AFS and corresponding production reported to PAAS resulted in nearly $3.6 million in additional royalty collections in the first year of operations.

A contract was awarded in April 1985 to install a new IBM mainframe computer at RMP Headquarters in Lakewood, Colorado. The computer hardware became operational during the year.

The Department issued a Management Action Plan (MAP) for RMP in April 1985 enumerating 42 action elements addressing State and Indian issues, management initiatives, data/workload simplification programs, computer systems enhancements, and royalty compliance/product valuation efforts. The actions were designed to resolve the more significant mineral revenue problems that had confronted the Department during the previous 2 decades. The Office of the Associate Director for Royalty Management was relocated from Washington, D.C. to Lakewood, Colorado, in conjunction with the MAP initiatives.

The Secretary established a Royalty Management Advisory Committee (RMAC) in August 1985. The RMAC, composed of 31 individuals representing the States, the Indian community, and industry, was chartered to address key RMP issues and to advise the Secretary on matters that concern royalty participants.

1986

The MMS developed new procedures in response to an Interior Board of Land Appeals (IBLA) decision issued on January 30, 1986. The IBLA decision permits a company to stay payment of an assessment until the Department makes a final decision on the merits of the firm's audit appeal. The MMS procedures require a company to post a bond or

letter of credit in an amount to include royalty due, retroactive interest, and prospective interest for one year.

The RMP implemented the State and Tribal Support System (STATSS) on April 30, 1986. The STATSS provides States, Tribes, BIA, and other users with access to AFS data through communications links between microcomputers located at the user's facility and the RMP mainframe computer.

The PAAS operations continued to grow, collecting and processing monthly production data from all Federal offshore oil and gas leases, all Federal onshore solid mineral leases, and a limited number of Federal and Indian onshore oil and gas leases.

The MMS Office of External Affairs developed an outreach program to address concerns and issues raised by Indian Tribes and allottees through a series of periodic meetings. An Indian Lease Audit Strategy was implemented by MMS and BIA on January 1, 1986, to process and resolve allottee audit needs, prioritize allottee and Tribal audits, and evaluate procedures for use in directing future audit efforts.

1987

On June 17, 1987, the Assistant Secretary - Land and Minerals Management directed MMS to assume sole responsibility for the receipt, entry, edit, correction, and distribution of all onshore oil and gas production data. An implementation plan was developed in 1987 addressing software development, database verification, contractor hiring and training, and the identification of State and Indian information requirements.

The RMP completed functional, performance, and parallel operations testing for conversion of AFS to the new IBM mainframe computer. The AFS operations were successfully transferred from the VAX minicomputer environment to the IBM mainframe computer on September 1, 1987.

The MMS assembled a Systems Improvement Team in November 1986 to identify, design, and implement improvements to RMP automated systems. The process involved a two-phase approach. Phase I, completed in November 1987, examined existing systems' objectives and operating policies to develop recommendations for future systems developments. The recommendations were consolidated into the RMP Strategic Plan for Systems Improvements (Improvements Plan). The Improvements Plan was presented through an outreach program to 21 State and Tribal organizations, 4 industry organizations, 3 inter-Agency organizations, and staff members from several congressional committees. The RMP further hosted 3 regional seminars attended by 530 industry representatives. Phase II, involving a feasibility assessment of Phase I recommendations and development of a plan for their implementation, was scheduled to begin in 1988.

1988

Work continued during the year to automate production accounting under PAAS for the remainder of the onshore oil and gas leases. Approximately 65 percent of onshore production was converted by October 1988.

Final product valuation regulations for oil and gas were published in the Federal Register on January 15, 1988. This followed a year of public hearings and comment periods in which divergent and often conflicting views of product valuation were raised by State, Indian, and industry representatives. The regulations became final on March 1, 1988.

Phase II of the systems improvement effort, involving detailed system analysis, design, construction, and testing of systems improvements identified in Phase I was initiated during the year. A report was issued in August 1988 identifying a 3-year implementation plan for the various proposals, as well as a long-term systems strategy for RMP. Some of the more significant improvements implemented in 1988 follow:

o An initiative, allowing industry 90 days to make retroactive adjustments without interest charges, following the month of approval of a unit or communitization agreement, was implemented in January 1985. The 90-day period provides adequate time for industry to report adjustments to ensure an accurate distribution of royalties to recipients.

o The RMP introduced automated internal controls in February 1988 to monitor royalty adjustments to leases that have been audited. The controls strengthen the integrity of the audit process.

o Corrections were made to procedures to calculate royalty rates and unit values on the AFS Explanation of Payment (EOP) Reports provided to States and

Indians. The corrections appeared on EOP Reports beginning on May 31, 1988.

o The RMP eliminated zero-sales reporting and nonrespondent exception processing for Outer Continental Shelf (OCS) leases and solid mineral leases in June 1988. The RMP will verify zero-sales reporting and monitor a payor's failure to submit royalty payments through the AFS/PAAS comparison.

1989

The Special Committee on Investigations of the Senate Select Committee on Indian Affairs (Senate Select Committee) was authorized in February 1988 to conduct a comprehensive investigation into the Federal Government's relationship with Indians. The MMS Director, Barry A. Williamson, and senior RMP officials testified before the Senate Select Committee in May 1989.

To evaluate the Senate Select Committee's concerns and to develop an improvement plan, the Director assembled an Initiative for Indian Tribes and Allottees (IITA) Task Force. The IITA Task Force developed a series of proposals to improve royalty management services to the Indian community.

The Director asked RMAC to comment on the scope and utility of IITA proposals. The RMAC convened a Strategic Planning Work Panel in Denver on three occasions in July and August 1989 to study IITA and to develop recommendations. The panel submitted its report to RMAC at a meeting on September 7, 1989. The RMAC endorsed the majority of the MMS initiatives and proposed additional Indian royalty management improvements. The MMS incorporated RMAC's input in an action plan to implement the IITA improvements.

Final product valuation regulations for coal were published in the Federal Register on January 13, 1989. A number of State, Tribal, and industry officials voiced objections to the new rules. The Secretary asked the Director to chair a panel of senior departmental officials to hear the views of these constituents and the public to determine if a better solution could be developed. A public meeting was conducted by the panel in Lakewood, Colorado, and written comments were solicited.

The panel advised the Secretary of the concerns of the respondents. The Department assessed the fiscal impact of implementation of the rules on affected parties and the impact on coal production. The Department subsequently published a Federal Register Notice of a proposed amendment to the coal product valuation regulations on February 13, 1990.

A solicitation for comments on proposed geothermal resources product valuation regulations was published in the Federal Register on January 5, 1989. A public hearing was held in Lakewood, Colorado, on March 28, 1989. Senior departmental officials heard testimony from industry representatives and private royalty recipients. The comment period closed on April 17, 1989. The testimony at the public hearing and the written comments will be used to formulate final product valuation rules by 1991.

A contract providing audit funding under the provisions of Section 202 of FOGRMA was signed with the State of Louisiana in FY 1989. The contract included the audit of royalties from leases under Section 8(g) of the OCS Lands Act. Additional contracts were signed under Section 205 of FOGRMA with the Northern Ute Tribe and the Southern Ute Tribe during the fiscal year.

Conversion of remaining onshore oil and gas leases to automated production accounting was completed on October 16, 1989. The MMS began receiving 22,000 onshore production reports from 2,500 operators each month.

In late 1988 and early 1989, RMP solicited comments from numerous constituents concerning RMP's statutory regulatory requirements, mission, goals, performance, and selected options for change. The RMAC reconvened its Strategic Planning Work Panel to review these topics in July and August 1989. The RMAC rejected all of the selected options for change it reviewed. In May 1990, RMP published a final Strategic Plan for Operations and Systems based on the input of RMAC and other constituents.

The Decade of the 1990's

The MMS is prepared to meet the challenges of the new decade. Department of Energy analysts expect the current unrest in the Middle East to limit oil supplies and to force petroleum prices up in the early part of the period. Exploration and production on Federal and Indian lands can be expected to grow, producing increased royalty, rent, and bonus revenues.

Audit and royalty underpayment detection programs will continue to expand and generate additional revenues. An experienced audit force and enhanced sophistication in automated systems will enable MMS to better identify and collect revenues due to erroneous reporting, late reporting, and failure to report mineral lease revenues.

The RMP systems improvement initiative will be substantially complete in 1992, providing a common reference database for AFS, BRASS, and PAAS, as well as improved reporting procedures.

Following the completion of the major objectives envisioned by the Department in 1981, MMS is embarking on an initiative to enhance the business-like quality and timeliness of service to its constituents. To chart its long-term direction, MMS has employed integrated business system planning techniques paralleling those successfully used by private sector corporations.

As indicated above, MMS has published a Strategic Plan for Operations and Systems developed in partnership with its constituents. The Strategic Plan incorporates an initiative for Indian Tribes and allottees to improve services to Indian royalty recipients and to better fulfill the Department's trust responsibilities. The Strategic Plan further includes a long-term commitment to high quality public service using a Total Quality Management approach as the guiding philosophy. This philosophy involves the pursuit of continuous improvement through the efforts of management and employees, with a unified attitude of public service and stewardship over public resources.

Report Format

This publication is structured in a manner comparable to our annual report. The publication contains chapters addressing Federal offshore, Federal onshore, and Indian mineral revenues as well as chapters addressing distribution of revenues, royalty-in-kind, and lease management.

The majority of tables provide 10 years of historical data. Table 11, addressing Federal onshore minimum royalties by State, and table 12, addressing Federal onshore rents by State, provide data from 1985-89. Information is not available at the State level prior to 1985. Table 16, addressing the distribution of mineral revenue shares to other Federal Agencies from acquired lands, provides data from FY 1985-89. Again, information prior to FY 1985 is not available. Table 17, addressing the distribution of OCS royalties and escrow funds under the provisions of the OCS Lands Act Amendments of 1985, provides data from FY 1986-89. Distributions were not authorized prior to FY 1986.

Some information in this report necessarily includes estimated data that may be revised subsequent to publication. Information in parentheses is attributed to credits for prior-year adjustments.

All information in this report is by calendar year unless specifically noted otherwise.

Production figures represent the quantity reported sold during the year. Production volume for each commodity is measured in standard units throughout the report. Oil is measured in barrels (42 U.S. gallons); gas, carbon dioxide, nitrogen, and helium are measured in Mcf (thousand cubic feet); gas plant products are measured in gallons; geothermal and heated water sources are measured in millions of Btu's; amethyst is measured in grams; garnet concession is measured in tickets; quartz crystals are measured in pounds; and all other remaining solid minerals are measured in short tons (2,000 pounds).

Market value figures represent the value of commodities sold after the deduction of appropriate allowances. During the period March 1989 through September 1990, the market value of coal incorporates special allowances for selected production fees and taxes. Market value will be referred to as sales value in future editions of this report.

Minerals referred to in this report as "Other" or as "Other Production" may include the following solid and fluid minerals: amethyst, barite, bentonite, carbon dioxide, chat, clay, copper, feldspar, fluorspar, garnet concession, garnet sands, gas lost, gas plant products, geothermal energy, gilsonite, gold, gypsum, helium, hot water, iron ore, langbeinite, lead, leonardite, limestone, magnesium, molybdenum, nitrogen, oil lost, oil shale, phosphate, potash, potassium, purge liquor, quartz crystals, salt, sand and gravel, scoria, silica sand, silver, soda ash, sodium, sulfur, sylvite, trona ore, tungsten, uranium, wavellite, and zinc. Gas plant products include gasoline, liquid petroleum gas, propane, butane, and other gas commodities measured in gallons. Some of these minerals are referenced in tables 3, 4, and 24.

Table 1.--Revenues from Federal and Indian mineral leases in the United States, 1980-89

	Royalties	Minimum Royalties	Rents	Bonuses	Total
1980					
Offshore Federal..	$2,136,663,425	$ 2,284,553	$ 19,055,150	$4,204,640,257	$ 6,362,643,385
Onshore Federal...	705,188,417	---	D/I	22,982,316	728,170,733
Indian.....	119,201,383	---	D/I	---	119,201,383
Total.....	**$2,961,053,225**	**$ 2,284,553**	**$ 19,055,150**	**$4,227,622,573**	**$ 7,210,015,501**
1981					
Offshore Federal..	$3,288,550,224	$ 2,250,300	$ 21,731,035	$6,652,980,897	$ 9,965,512,456
Onshore Federal...	964,686,380	---	D/I	128,673,005	1,093,359,385
Indian.....	161,473,757	---	D/I	---	161,473,757
Total.....	**$4,414,710,361**	**$ 2,250,300**	**$ 21,731,035**	**$6,781,653,902**	**$11,220,345,598**
1982					
Offshore Federal..	$3,814,871,635	$ 2,393,759	$ 20,055,201	$3,987,490,009	$ 7,824,810,604
Onshore Federal...	972,481,830	---	154,728,000	125,270,858	1,252,480,688
Indian.....	162,726,747	---	4,656,065	---	167,382,812
Total.....	**$4,950,080,212**	**$ 2,393,759**	**$179,439,266**	**$4,112,760,867**	**$ 9,244,674,104**
1983					
Offshore Federal..	$3,454,318,079	$ 4,463,658	$ 32,463,097	$5,749,016,369	$ 9,240,261,203
Onshore Federal...	962,584,998	---	129,511,928	62,108,205	1,154,205,131
Indian.....	156,373,198	---	3,621,550	---	159,994,748
Total.....	**$4,573,276,275**	**$ 4,463,658**	**$165,596,575**	**$5,811,124,574**	**$10,554,461,082**
1984					
Offshore Federal..	$3,964,180,673	$ 3,458,139	$ 35,607,835	$3,928,876,308	$ 7,932,122,955
Onshore Federal...	1,016,695,332	---	117,754,744	50,068,801	1,184,518,877
Indian.....	128,386,900	---	3,576,549	---	131,963,449
Total.....	**$5,109,262,905**	**$ 3,458,139**	**$156,939,128**	**$3,978,945,109**	**$ 9,248,605,281**
1985					
Offshore Federal..	$3,638,813,376	$ 4,067,321	$ 61,866,436	$1,543,577,714	$ 5,248,324,847
Onshore Federal...	992,953,891	1,782,388	105,809,280	47,594,759	1,148,140,318
Indian.....	139,424,708	---	3,372,750	---	142,797,458
Total.....	**$4,771,191,975**	**$ 5,849,709**	**$171,048,466**	**$1,591,172,473**	**$ 6,539,262,623**

Table 1.--Revenues from Federal and Indian mineral leases in the United States, 1980-89

	Royalties	Minimum Royalties	Rents	Bonuses	Total
1986					
Offshore Federal..	$2,559,660,623	$ 5,176,608	$ 52,958,237	$ 187,094,747	$ 2,804,890,215
Onshore Federal...	664,470,423	7,921,348	73,453,353	30,209,062	776,054,186
Indian.....	105,028,658	---	3,018,833	---	108,047,491
Total.....	**$3,329,159,704**	**$13,097,956**	**$129,430,423**	**$ 217,303,809**	**$ 3,688,991,892**
1987					
Offshore Federal..	$2,351,164,026	$21,399,332	$ 74,642,712	$ 497,247,006	$ 2,944,453,076
Onshore Federal...	682,411,009	14,377,320	61,449,391	34,752,714	792,990,434
Indian.....	104,787,583	---	1,206,406	---	105,993,989
Total.....	**$3,138,362,618**	**$35,776,652**	**$137,298,509**	**$ 531,999,720**	**$ 3,843,437,499**
1988					
Offshore Federal..	$2,078,601,613	$16,822,821	$ 61,433,545	$1,234,587,634	$ 3,391,445,613
Onshore Federal...	649,534,932	11,279,396	64,810,845	59,394,838	785,020,011
Indian.....	112,282,668	---	1,255,603	---	113,538,271
Total.....	**$2,840,419,213**	**$28,102,217**	**$127,499,993**	**$1,293,982,472**	**$ 4,290,003,895**
1989					
Offshore Federal..	$2,151,389,563	$38,890,914	$ 79,247,653	$ 645,646,870	$ 2,915,175,000
Onshore Federal...	703,271,378	14,596,315	64,582,840	93,490,354	875,940,887
Indian.....	122,429,802	---	1,454,523	---	123,884,325
Total.....	**$2,977,090,743**	**$53,487,229**	**$145,285,016**	**$ 739,137,224**	**$ 3,915,000,212**

NOTE: D/I indicates that data are incomplete for the revenue source during the time period.

Federal onshore minimum royalties are included in Federal onshore royalties for 1980-84. Standard Indian leases do not contain minimum royalty provisions. Most Indian leases retain rental provisions after the lease is producing.

Indian rent revenues represent fiscal year data from Bureau of Indian Affairs (BIA) records for 1982-87. Indian rent revenues represent calendar year data from Minerals Management Service (MMS) records for producing leases during the period 1988-89.

Offshore Federal bonus revenues represent calendar year data from U.S. Geological Survey records for 1980 and MMS records for 1981-89. Onshore Federal bonus revenues represent fiscal year data from Bureau of Land Management Public Land Statistics for 1980-87. Onshore Federal bonus revenues represent calendar year data from MMS records for 1988-89. Indian bonus revenues are collected by BIA.

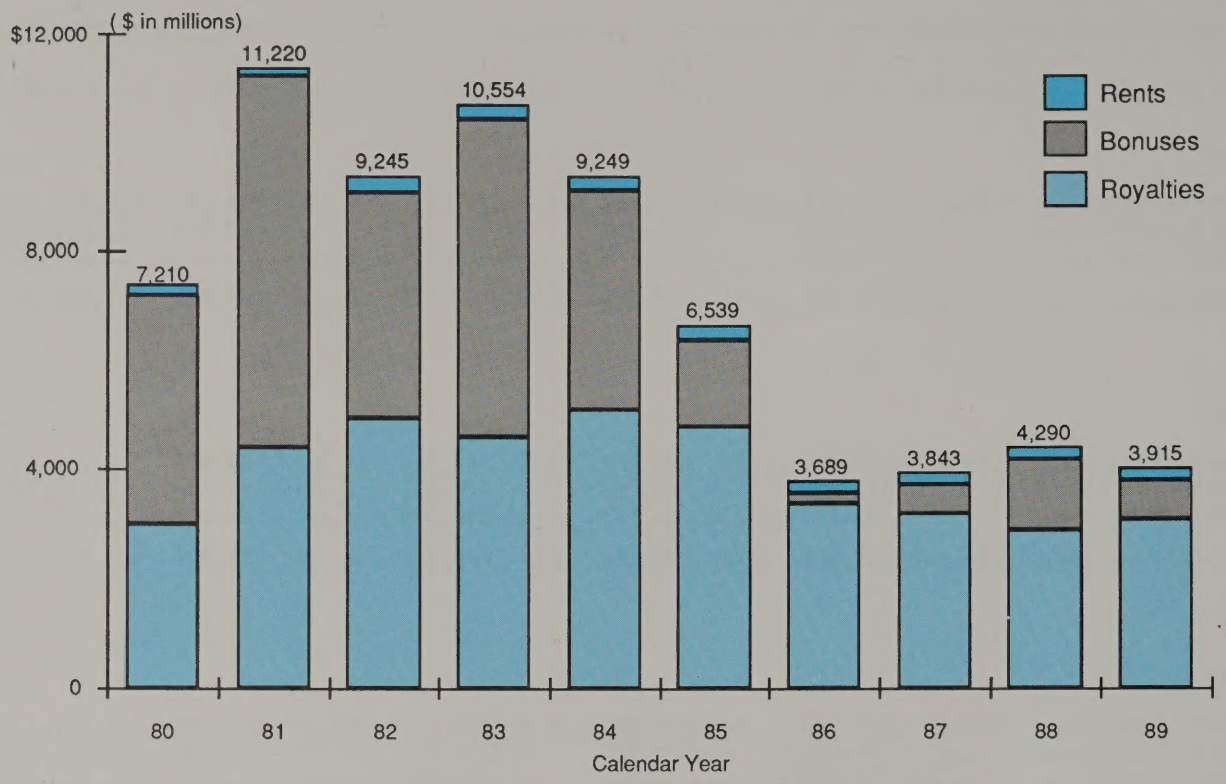


Figure 6. --- Revenues from Federal and Indian mineral leases by source, 1980-89

MMS official inspects offshore platform in the Gulf of Mexico.

Table 2.--Royalties, rents, and bonuses from Federal and Indian mineral leases in the United States, 1980-89

	Federal Lands		Indian	Total
	Offshore	Onshore	Lands	Revenues
1980				
Oil Royalties.....	$ 837,237,386	$ 413,403,243	$ 67,185,913	$ 1,317,826,542
Gas Royalties.....	1,295,291,353	215,282,024	30,726,238	1,541,299,615
Coal Royalties.....	---	32,255,361	7,874,061	40,129,422
Other Royalties.....	4,134,686	44,247,789	13,415,171	61,797,646
Minimum Royalties.....	2,284,553	---	---	2,284,553
Rents.....	19,055,150	D/I	D/I	19,055,150
Bonuses.....	4,204,640,257	22,982,316	---	4,227,622,573
Total.....	**$6,362,643,385**	**$ 728,170,733**	**$119,201,383**	**$ 7,210,015,501**
1981				
Oil Royalties.....	$1,575,316,509	$ 604,782,996	$103,919,408	$ 2,284,018,913
Gas Royalties.....	1,711,962,893	274,731,205	36,880,307	2,023,574,405
Coal Royalties.....	---	43,009,278	8,604,304	51,613,582
Other Royalties.....	1,270,822	42,162,901	12,069,738	55,503,461
Minimum Royalties.....	2,250,300	---	---	2,250,300
Rents.....	21,731,035	D/I	D/I	21,731,035
Bonuses.....	6,652,980,897	128,673,005	---	6,781,653,902
Total.....	**$9,965,512,456**	**$1,093,359,385**	**$161,473,757**	**$11,220,345,598**
1982				
Oil Royalties.....	$1,740,288,038	$ 524,530,180	$ 92,559,824	$ 2,357,378,042
Gas Royalties.....	2,074,583,597	349,439,615	54,378,374	2,478,401,586
Coal Royalties.....	---	61,898,704	8,527,548	70,426,252
Other Royalties.....	---	36,613,331	7,261,001	43,874,332
Minimum Royalties.....	2,393,759	---	---	2,393,759
Rents.....	20,055,201	154,728,000	4,656,065	179,439,266
Bonuses.....	3,987,490,009	125,270,858	---	4,112,760,867
Total.....	**$7,824,810,604**	**$1,252,480,688**	**$167,382,812**	**$ 9,244,674,104**

Table 2.--Royalties, rents, and bonuses from Federal and Indian mineral leases in the United States, 1980-89 (cont.)

	Federal Lands		Indian	Total
	Offshore	Onshore	Lands	Revenues
1983				
Oil Royalties.....	$1,639,521,510	$ 523,898,702	$ 89,727,647	$ 2,253,147,859
Gas Royalties.....	1,814,796,569	346,762,100	50,287,896	2,211,846,565
Coal Royalties.....	---	52,330,292	9,416,941	61,747,233
Other Royalties.....	---	39,593,904	6,940,714	46,534,618
Minimum Royalties.....	4,463,658	---	---	4,463,658
Rents.....	32,463,097	129,511,928	3,621,550	165,596,575
Bonuses.....	5,749,016,369	62,108,205	---	5,811,124,574
Total.....	**$9,240,261,203**	**$1,154,205,131**	**$159,994,748**	**$10,554,461,082**
1984				
Oil Royalties.....	$1,823,447,844	$ 519,046,615	$ 75,973,022	$ 2,418,467,481
Gas Royalties.....	2,091,276,753	371,155,164	37,295,148	2,499,727,065
Coal Royalties.....	---	69,359,702	7,613,759	76,973,461
Other Royalties.....	49,456,076	57,133,851	7,504,971	114,094,898
Minimum Royalties.....	3,458,139	---	---	3,458,139
Rents.....	35,607,835	117,754,744	3,576,549	156,939,128
Bonuses.....	3,928,876,308	50,068,801	---	3,978,945,109
Total.....	**$7,932,122,955**	**$1,184,518,877**	**$131,963,449**	**$ 9,248,605,281**
1985				
Oil Royalties.....	$1,707,184,899	$ 492,367,908	$ 75,025,974	$ 2,274,578,781
Gas Royalties.....	1,905,597,880	328,657,320	35,853,169	2,270,108,369
Coal Royalties.....	---	103,473,037	23,403,336	126,876,373
Other Royalties.....	26,030,597	68,455,626	5,142,229	99,628,452
Minimum Royalties.....	4,067,321	1,782,388	---	5,849,709
Rents.....	61,866,436	105,809,280	3,372,750	171,048,466
Bonuses.....	1,543,577,714	47,594,759	---	1,591,172,473
Total.....	**$5,248,324,847**	**$1,148,140,318**	**$142,797,458**	**$ 6,539,262,623**

Table 2.--Royalties, rents, and bonuses from Federal and Indian mineral leases in the United States, 1980-89 (cont.)

	Federal Lands		Indian	Total
	Offshore	Onshore	Lands	Revenues
1986				
Oil Royalties	$1,015,037,703	$ 268,689,563	$ 42,420,370	$ 1,326,147,636
Gas Royalties	1,518,338,984	224,601,025	27,263,985	1,770,203,994
Coal Royalties	---	108,420,624	29,476,973	137,897,597
Other Royalties	26,283,936	62,759,211	5,867,330	94,910,477
Minimum Royalties	5,176,608	7,921,348	---	13,097,956
Rents	52,958,237	73,453,353	3,018,833	129,430,423
Bonuses	187,094,747	30,209,062	---	217,303,809
Total	**$2,804,890,215**	**$ 776,054,186**	**$108,047,491**	**$ 3,688,991,892**
1987				
Oil Royalties	$ 999,273,491	$ 289,069,747	$ 45,813,797	$ 1,334,157,035
Gas Royalties	1,337,761,434	183,941,568	22,240,298	1,543,943,300
Coal Royalties	---	152,470,369	30,481,374	182,951,743
Other Royalties	14,129,101	56,929,325	6,252,114	77,310,540
Minimum Royalties	21,399,332	14,377,320	---	35,776,652
Rents	74,642,712	61,449,391	1,206,406	137,298,509
Bonuses	497,247,006	34,752,714	---	531,999,720
Total	**$2,944,453,076**	**$ 792,990,434**	**$105,993,989**	**$ 3,843,437,499**
1988				
Oil Royalties	$ 747,454,359	$ 230,896,902	$ 36,046,679	$ 1,014,397,940
Gas Royalties	1,310,301,872	182,044,265	22,492,041	1,514,838,178
Coal Royalties	---	172,795,745	46,691,767	219,487,512
Other Royalties	20,845,382	63,798,020	7,052,181	91,695,583
Minimum Royalties	16,822,821	11,279,396	---	28,102,217
Rents	61,433,545	64,810,845	1,255,603	127,499,993
Bonuses	1,234,587,634	59,394,838	---	1,293,982,472
Total	**$3,391,445,613**	**$ 785,020,011**	**$113,538,271**	**$ 4,290,003,895**

Table 2.--Royalties, rents, and bonuses from Federal and Indian mineral leases in the United States, 1980-89 (cont.)

	Federal Lands		Indian	Total
	Offshore	Onshore	Lands	Revenues
1989				
Oil Royalties	$ 818,591,495	$ 263,056,653	$ 40,835,885	$ 1,122,484,033
Gas Royalties	1,300,193,995	176,414,932	24,632,980	1,501,241,907
Coal Royalties	---	194,541,835	47,677,927	242,219,762
Other Royalties	32,604,073	69,257,958	9,283,010	111,145,041
Minimum Royalties	38,890,914	14,596,315	---	53,487,229
Rents	79,247,653	64,582,840	1,454,523	145,285,016
Bonuses	645,646,870	93,490,354	---	739,137,224
Total	**$2,915,175,000**	**$ 875,940,887**	**$123,884,325**	**$ 3,915,000,212**

NOTE: D/I indicates that data are incomplete for the revenue source during the time period.

Federal onshore minimum royalties are included in Federal onshore oil, gas, coal, and other royalties for 1980-84. Standard Indian leases do not contain minimum royalty provisions. Most Indian leases retain rental provisions after the lease is producing.

Indian rent revenues represent fiscal year data from Bureau of Indian Affairs (BIA) records for 1982-87. Indian rent revenues represent calendar year data from Minerals Management Service (MMS) records for producing leases during the period 1988-89.

Offshore Federal bonus revenues represent calendar year data from U.S. Geological Survey records for 1980 and MMS records for 1981-89. Onshore Federal bonus revenues represent fiscal year data from Bureau of Land Management Public Land Statistics for 1980-87. Onshore Federal bonus revenues represent calendar year data from MMS records for 1988-89. Indian bonus revenues are collected by BIA.

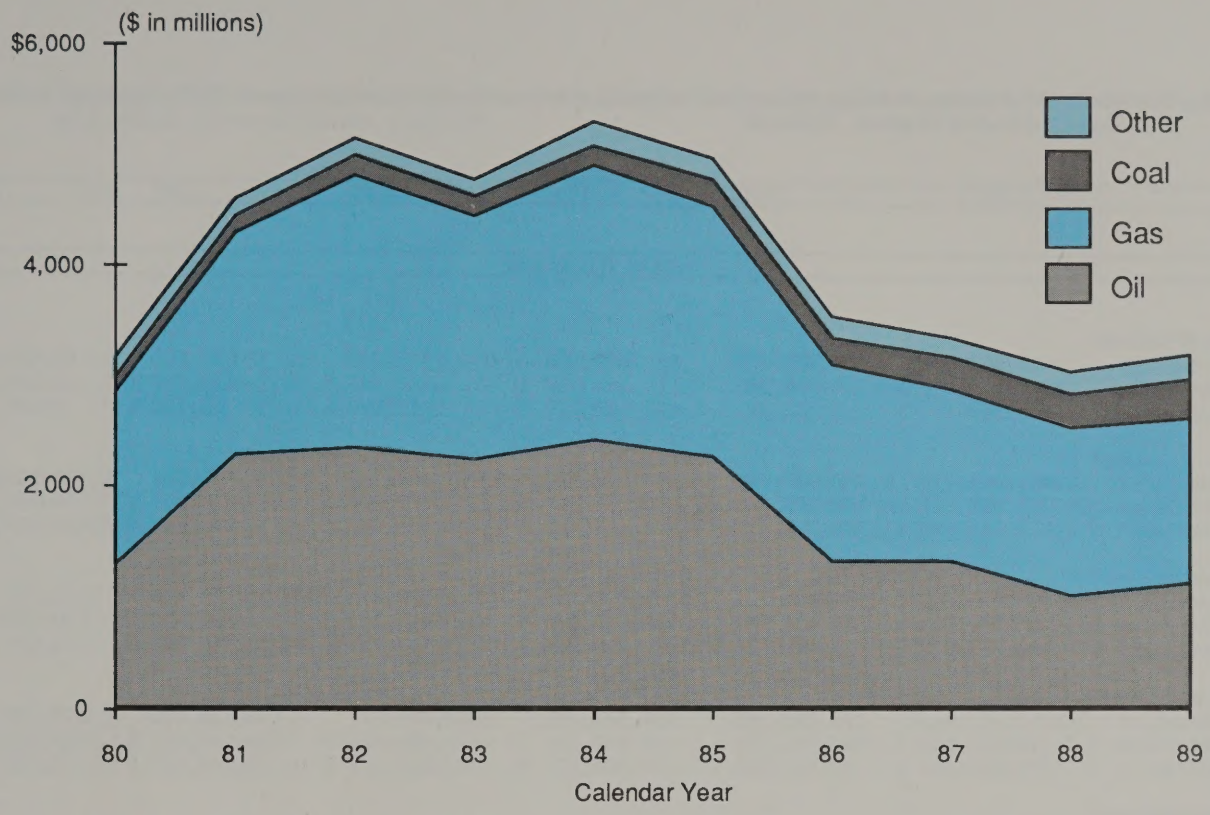


Figure 7. --- Royalties from Federal and Indian mineral leases by commodity, 1980-89

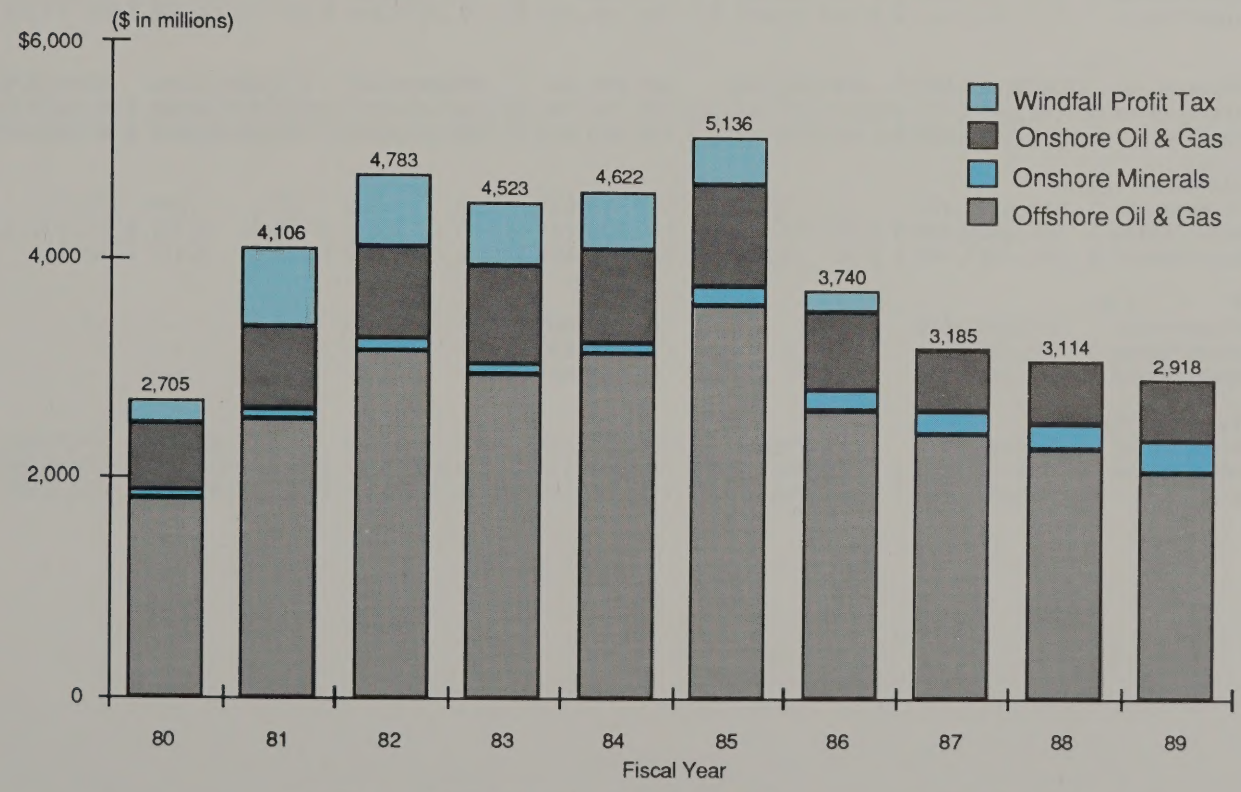


Figure 8. --- Royalties from Federal and Indian mineral leases, 1980-89

Table 3.--Summary of volume, market value, and royalties for selected minerals from OCS, Federal onshore, and Indian mineral leases, 1920-89

	1920-79	1980	1981	1982	1983	1984
Fluid Minerals						
Carbon Dioxide						
Volume	9,089,668	561,822	838,024	715,339	629,500	54,699,015
Market Value	$ 1,586,846	$ 207,330	$ 260,996	$ 158,234	$ 139,200	$ 42,524,146
Royalties	$ 157,118	$ 22,063	$ 29,822	$ 17,820	$ 15,700	$ 5,155,334
Gas						
Volume	70,461,501,916	5,787,597,088	6,052,083,123	5,973,752,376	5,127,678,564	5,750,727,501
Market Value	$28,357,402,926	$9,826,948,170	$12,958,088,760	$15,576,292,414	$14,400,916,801	$16,057,263,410
Royalties	$ 4,317,753,085	$1,541,299,615	$ 2,023,574,405	$ 2,478,401,586	$ 2,211,846,565	$ 2,499,727,065
Gas Lost						
Volume	144,054,403	13,919,906	5,174,043	(598,812)	58,800	(9,239,073)
Market Value	$ 82,305,881	$ 23,497,949	$ 6,365,866	$ (161,531)	$ 132,800	$ (10,297,183)
Royalties	$ 12,572,965	$ 3,037,322	$ 723,710	$ (12,292)	$ 16,600	$ (1,639,511)
Gas Plant Products						
Volume	31,951,742,151	288,749,142	299,564,228	378,306,977	339,899,000	825,317,001
Market Value	$ 2,629,523,506	$ 140,948,672	$ 177,006,213	$ 277,446,626	$ 248,511,000	$ 285,822,760
Royalties	$ 176,040,154	$ 7,926,064	$ 9,196,002	$ 12,555,177	$ 11,741,500	$ 61,708,638
Geothermal						
Volume	---	1,139,569	1,971,710	2,056,999	2,095,458	8,865,201
Market Value	---	$ 6,032,991	$ 12,421,774	$ 15,830,455	$ 21,990,642	$ 77,570,506
Royalties	---	$ 754,124	$ 1,552,722	$ 1,978,197	$ 2,747,373	$ 9,959,824
Hot Water						
Volume	---	3,701	11,470	6,752	26,023	347,250
Market Value	---	$ 26,175	$ 84,345	$ 58,401	$ 240,975	$ 2,603,058
Royalties	---	$ 2,618	$ 8,435	$ 5,840	$ 24,098	$ 324,017
Oil						
Volume	12,470,162,522	449,080,050	467,287,007	490,634,147	519,871,165	544,379,783
Market Value	$51,571,103,217	$8,868,155,372	$15,284,878,704	$15,037,499,952	$14,978,914,988	$15,500,070,605
Royalties	$ 7,727,333,552	$1,317,826,542	$ 2,284,018,913	$ 2,357,378,042	$ 2,253,147,859	$ 2,418,467,481
Oil Lost						
Volume	191,702	1,711	18,938	553	299	8
Market Value	$ 1,506,390	$ 174,516	$ 539,283	$ 1,614	$ 9,367	$ 2,666
Royalties	$ 207,466	$ (4,836)	$ 68,453	$ 228	$ 1,171	$ (30)
Salt						
Volume	4,751,619	---	14,060	---	---	---
Market Value	$ 773,882	---	$ 720,830	---	---	---
Royalties	$ 129,546	---	$ 105,604	---	---	---
Sulfur						
Volume	16,883,635	773,644	569,457	337,080	62,800	461,895
Market Value	$ 408,171,944	$ 743,116	$ 913,332	$ 1,052,317	$ 925,800	$ 5,656,312
Royalties	$ 45,871,981	$ 29,192	$ 36,526	$ 51,791	$ 45,500	$ 158,702

Table 3.--Summary of volume, market value, and royalties for selected minerals from OCS, Federal onshore, and Indian mineral leases, 1920-89

1985	1986	1987	1988	1989	1920-89	
Fluid Minerals						
						Carbon Dioxide
148,805,107	214,765,631	214,300,882	192,344,887	212,922,740	1,049,672,615	Volume
$ 109,015,401	$ 106,642,761	$ 101,441,167	$ 120,080,713	$ 163,780,626	$ 645,837,420	Market Value
$ 13,083,379	$ 12,782,485	$ 11,867,100	$ 9,990,923	$ 10,642,228	$ 63,763,972	Royalties
						Gas
5,096,870,952	4,868,457,833	5,420,807,591	5,314,847,233	5,211,457,103	125,065,781,280	Volume
$14,334,958,778	$11,109,833,239	$9,792,949,595	$9,566,702,680	$9,451,719,098	$151,433,075,871	Market Value
$ 2,270,108,369	$ 1,770,203,994	$1,543,943,300	$1,514,838,178	$1,501,241,907	$ 23,672,938,069	Royalties
						Gas Lost
(8,070,071)	1,042,854	694,750	837,156	(7,167,586)	140,706,370	Volume
$ (3,629,633)	$ 1,781,107	$ 1,069,593	$ 2,493,717	$ (5,352,821)	$ 98,205,745	Market Value
$ (435,036)	$ 224,402	$ 139,378	$ 312,152	$ (866,532)	$ 14,073,158	Royalties
						Gas Plant Products
853,729,018	748,767,577	746,792,193	1,309,355,908	1,660,604,151	39,402,827,346	Volume
$ 315,775,352	$ 267,596,991	$ 181,794,667	$ 314,169,527	$ 388,240,864	$ 5,226,836,178	Market Value
$ 45,021,390	$ 38,649,138	$ 24,998,693	$ 33,955,668	$ 43,371,852	$ 465,164,276	Royalties
						Geothermal
15,153,580	24,156,727	10,241,553	11,786,273	12,865,596	90,332,666	Volume
$ 105,447,371	$ 141,316,855	$ 114,133,038	$ 100,136,451	$ 110,901,439	$ 705,781,522	Market Value
$ 13,396,664	$ 17,279,937	$ 14,134,967	$ 12,265,355	$ 13,078,493	$ 87,147,656	Royalties
						Hot Water
107,576	160,136	134,387	1,228,492	1,642,626	3,668,413	Volume
$ 791,000	$ 1,020,069	$ 1,854,757	$ 9,986,139	$ 15,342,181	$ 32,007,100	Market Value
$ 79,100	$ 102,007	$ 185,476	$ 980,688	$ 1,532,938	$ 3,245,217	Royalties
						Oil
579,725,595	566,491,399	535,109,032	476,533,156	453,345,362	17,552,619,218	Volume
$15,258,905,645	$ 8,951,765,603	$9,056,246,525	$6,949,033,549	$7,661,624,711	$169,118,198,871	Market Value
$ 2,274,578,781	$ 1,326,147,636	$1,334,157,035	$1,014,397,940	$1,122,484,033	$ 25,429,937,814	Royalties
						Oil Lost
(4,385)	1,086	516	442	29	210,899	Volume
$ (14,772)	$ 16,813	$ 7,850	$ 5,344	$ 689	$ 2,249,760	Market Value
$ (1,839)	$ 2,139	$ 970	$ 541	$ 86	$ 274,349	Royalties
						Salt
---	---	---	44	1,059	4,766,782	Volume
---	---	---	$ 2,619	$ 63,556	$ 1,560,887	Market Value
---	---	---	$ 437	$ 10,614	$ 246,201	Royalties
						Sulfur
1,010,612	1,348,897	52,085	(4,309)	411,337	21,907,133	Volume
$ 14,626,459	$ 12,464,740	$ (14,093,048)	$ 415,005	$ 31,208,988	$ 462,084,965	Market Value
$ 1,306,271	$ 871,135	$ (796,497)	$ (120,177)	$ 3,414,258	$ 50,868,682	Royalties

Table 3.--Summary of volume, market value, and royalties for selected minerals from OCS, Federal onshore, and Indian mineral leases, 1920-89 (cont.)

	1920-79	1980	1981	1982	1983	1984
Solid Minerals						
Coal						
Volume	749,270,846	92,909,847	138,785,714	130,024,306	124,306,564	136,341,770
Market Value	$ 4,549,030,154	$1,103,912,223	$ 1,735,655,964	$ 1,929,574,312	$ 1,838,271,270	$ 1,666,764,499
Royalties	$ 140,330,779	$ 40,129,422	$ 51,613,582	$ 70,426,252	$ 61,747,233	$ 76,973,461
Copper						
Volume	320,568	17,706	16,659	15,440	11,135	181,782
Market Value	$ 157,543,694	$ 9,514,974	$ 9,929,818	$ 2,911,357	$ 2,099,703	$ 21,721,106
Royalties	$ 11,632,849	$ 733,093	$ 797,881	$ 170,180	$ 104,985	$ 1,453,057
Fluorspar						
Volume	306,388	7,275	8,760	---	---	4,074
Market Value	$ 17,996,635	$ 1,114,051	$ 1,567,684	---	---	$ 455,099
Royalties	$ 711,467	$ 50,132	$ 70,546	---	---	$ 20,691
Lead						
Volume	9,849,037	429,953	306,238	378,841	493,943	230,591
Market Value	$ 1,321,553,599	$ 222,052,333	$ 116,295,243	$ 70,606,450	$ 59,101,000	$ 72,344,373
Royalties	$ 68,766,024	$ 11,102,646	$ 5,814,762	$ 3,530,322	$ 2,951,458	$ 2,513,054
Limestone						
Volume	3,463,286	1,890	7,416	104,575	43,445	3,184
Market Value	$ 4,501,721	$ 14,515	$ 54,553	$ 778,614	$ 360,377	$ 4,138
Royalties	$ 266,528	$ 726	$ 1,503	$ 19,155	$ 9,009	$ 104
Phosphate						
Volume	100,578,295	6,677,563	5,984,660	1,539,106	1,802,969	8,750,471
Market Value	$ 427,558,864	$ 58,639,138	$ 61,304,799	$ 18,290,072	$ 21,677,590	$ 106,556,739
Royalties	$ 28,158,653	$ 4,071,992	$ 4,261,733	$ 914,524	$ 1,086,961	$ 5,330,194
Potash						
Volume	117,832,393	3,948,370	3,499,032	3,295,470	3,094,286	2,336,184
Market Value	$ 2,855,815,199	$ 262,587,277	$ 236,139,605	$ 219,365,268	$ 195,411,233	$ 111,623,050
Royalties	$ 117,732,979	$ 11,363,036	$ 8,462,567	$ 7,679,474	$ 6,607,154	$ 1,611,564
Sand-Gravel						
Volume	134,761,610	2,148,836	1,828,798	2,602,540	3,467,551	1,210,176
Market Value	$ 137,426,047	$ 3,087,039	$ 4,819,798	$ 4,665,463	$ 4,683,622	$ 3,100,572
Royalties	$ 10,276,488	$ 506,099	$ 429,136	$ 732,264	$ 1,045,783	$ 295,132
Sodium						
Volume	55,486,882	2,834,673	3,266,035	4,320,396	4,209,628	3,973,603
Market Value	$ 1,816,064,963	$ 223,346,164	$ 271,352,449	$ 274,221,927	$ 207,935,306	$ 190,985,635
Royalties	$ 79,043,129	$ 11,074,198	$ 13,527,243	$ 13,665,634	$ 9,850,697	$ 7,758,215
Uranium						
Volume	27,326,440	3,062,891	2,665,855	818,147	460,866	695,290
Market Value	$ 555,643,211	$ 42,701,883	$ 37,277,388	$ 42,910,213	$ 59,000,813	$ 60,441,312
Royalties	$ 80,747,756	$ 9,812,004	$ 8,883,878	$ (3,891,951)	$ 8,612,862	$ 5,787,961
Zinc						
Volume	945,696	101,949	97,465	106,642	145,362	(8,803)
Market Value	$ 173,088,354	$ 23,798,041	$ 23,731,343	$ 19,641,165	$ 31,263,384	$ 9,599,369
Royalties	$ 7,631,212	$ 1,189,482	$ 1,186,026	$ 993,483	$ 1,560,541	$ 308,169

Table 3.--Summary of volume, market value, and royalties for selected minerals from OCS, Federal onshore, and Indian mineral leases, 1920-89 (cont.)

1985	1986	1987	1988	1989	1920-89	
Solid Minerals						
						Coal
184,591,422	189,667,304	195,154,487	225,439,864	236,270,230	2,402,762,354	Volume
$ 2,772,300,913	$ 2,893,166,820	$3,112,240,736	$2,920,469,084	$3,199,612,577	$ 27,720,998,552	Market Value
$ 126,876,373	$ 137,897,597	$ 182,951,743	$ 219,487,512	$ 242,219,762	$ 1,350,653,716	Royalties
						Copper
12,701	64,890	60,000	87,268	123,164	911,313	Volume
$ 4,102,338	$ 17,622,021	$ 18,796,452	$ 45,303,771	$ 72,156,596	$ 361,701,830	Market Value
$ 189,691	$ 1,072,705	$ 1,491,003	$ 2,953,522	$ 4,819,837	$ 25,418,803	Royalties
						Fluorspar
7,718	4,414	---	809	---	339,438	Volume
$ 1,322,684	$ 751,281	---	$ 134,745	---	$ 23,342,179	Market Value
$ 61,324	$ 36,813	---	$ 6,064	---	$ 957,037	Royalties
						Lead
323,605	289,231	252,975	298,405	306,909	13,159,728	Volume
$ 74,075,759	$ 61,554,253	$ 114,564,421	$ 148,595,319	$ 155,744,356	$ 2,416,487,106	Market Value
$ 1,523,169	$ 1,732,825	$ 3,353,230	$ 4,355,667	$ 4,537,409	$ 110,180,566	Royalties
						Limestone
11,421	---	84,230	158,256	110,313	3,988,016	Volume
$ 54,592	---	$ 449,030	$ 619,976	$ 408,105	$ 7,245,621	Market Value
$ 1,458	---	$ 14,867	$ 21,409	$ 13,239	$ 347,998	Royalties
						Phosphate
6,190,620	4,840,419	5,066,910	7,079,484	6,019,045	154,529,542	Volume
$ 78,457,218	$ 58,528,739	$ 62,890,676	$ 67,683,409	$ 82,181,599	$ 1,043,768,843	Market Value
$ 4,247,010	$ 4,355,222	$ 4,511,921	$ 5,589,819	$ 5,481,537	$ 68,009,566	Royalties
						Potash
2,266,699	1,266,776	1,568,078	1,742,184	2,070,876	142,920,348	Volume
$ 126,715,618	$ 67,341,113	$ 87,317,441	$ 137,599,474	$ 171,208,383	$ 4,471,123,661	Market Value
$ 4,273,417	$ 1,810,638	$ 1,912,786	$ 2,998,652	$ 3,676,552	$ 168,128,819	Royalties
						Sand-Gravel
5,640,212	4,329,264	6,744,893	8,411,233	9,226,981	180,372,094	Volume
$ 15,775,682	$ 14,657,238	$ 22,643,646	$ 22,218,665	$ 33,777,456	$ 266,855,228	Market Value
$ 2,068,160	$ 1,564,865	$ 2,398,634	$ 2,802,972	$ 3,455,490	$ 25,575,023	Royalties
						Sodium
5,944,556	4,015,731	3,996,166	3,875,425	4,364,723	96,287,818	Volume
$ 214,879,657	$ 254,289,111	$ 222,648,184	$ 266,972,036	$ 305,962,326	$ 4,248,657,758	Market Value
$ 10,521,149	$ 12,712,953	$ 11,130,882	$ 13,434,654	$ 15,220,634	$ 197,939,388	Royalties
						Uranium
507,059	144,708	64	---	144	35,681,464	Volume
$ 30,505,612	$ 3,757,142	$ 3,647	---	$ 8,224	$ 832,249,445	Market Value
$ 2,523,807	$ 241,740	$ 456	---	$ 1,027	$ 112,719,540	Royalties
						Zinc
68,002	67,861	47,741	61,409	55,010	1,688,334	Volume
$ 25,799,027	$ 15,184,324	$ 17,358,508	$ 29,169,699	$ 44,042,264	$ 412,675,478	Market Value
$ 823,328	$ 538,860	$ 557,534	$ 1,073,243	$ 1,562,561	$ 17,424,439	Royalties

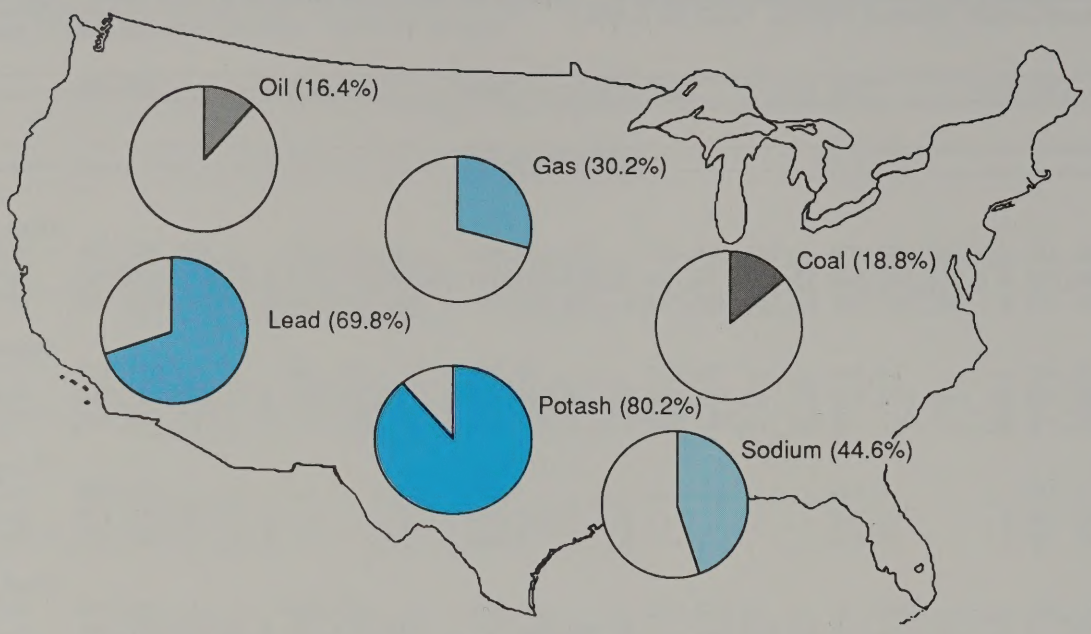


Figure 9. --- Federal and Indian mineral production as a percentage of total U.S. production, Calendar Years 1980-89

Coal preparation plant at an underground mine.
(Photo courtesy Consolidation Coal Company.)

Table 4.--Summary of selected mineral production from OCS, Federal onshore, and Indian mineral leases as a percentage of total U.S. production, 1950-89

	Oil in Barrels		Percentage
	Total U.S. Volume	Federal & Indian	of U.S. Total
1950-79	85,453	11,018	12.9
1980	3,138	449	14.3
1981	3,125	467	14.9
1982	3,157	491	15.6
1983	3,171	520	16.4
1984	3,241	544	16.8
1985	3,274	580	17.7
1986	3,168	566	17.9
1987	3,047	535	17.6
1988	2,971	477	16.1
1989	2,785	453	16.3
1950-89	**116,530**	**16,100**	**13.8**

	Gas in Mcf		Percentage
	Total U.S. Volume	Federal & Indian	of U.S. Total
1950-79	464,904	68,410	14.7
1980	20,180	5,788	28.7
1981	19,956	6,052	30.3
1982	18,520	5,974	32.3
1983	16,822	5,128	30.5
1984	18,230	5,751	31.5
1985	17,198	5,097	29.6
1986	16,791	4,868	29.0
1987	17,349	5,421	31.2
1988	17,808	5,315	29.8
1989	17,963	5,211	29.0
1950-89	**645,721**	**123,015**	**19.1**

	Coal in Tons		Percentage
	Total U.S. Volume	Federal & Indian	of U.S. Total
1950-79	14,036	556	4.0
1980	830	93	11.2
1981	824	139	16.9
1982	838	130	15.5
1983	782	124	15.9
1984	896	136	15.2
1985	884	185	20.9
1986	890	190	21.3
1987	919	195	21.2
1988	950	225	23.7
1989	975	236	24.2
1950-89	**22,824**	**2,209**	**9.7**

Table 4.--Summary of selected mineral production from OCS, Federal onshore, and Indian mineral leases as a percentage of total U.S. production, 1950-89 (cont.)

	Lead in Tons		Percentage
	Total U.S. Volume	Federal & Indian	of U.S. Total
1950-79	10,959	6,190	56.5
1980	632	430	68.0
1981	506	306	60.5
1982	584	379	64.9
1983	514	494	96.1
1984	369	231	62.6
1985	467	324	69.4
1986	389	289	74.3
1987	352	253	71.9
1988	434	298	68.7
1989	496	307	61.9
1950-89	**15,702**	**9,501**	**60.5**

	Phosphate in Tons		Percentage
	Total U.S. Volume	Federal & Indian	of U.S. Total
1950-79	825,141	90,196	10.9
1980	54,415	6,678	12.3
1981	59,110	5,985	10.1
1982	41,241	1,539	3.7
1983	46,929	1,803	3.8
1984	54,230	8,750	16.1
1985	56,036	6,191	11.0
1986	44,445	4,840	10.9
1987	45,144	5,067	11.2
1988	50,033	7,079	14.1
1989	56,218	6,019	10.7
1950-89	**1,332,942**	**144,147**	**10.8**

	Potash in Tons		Percentage
	Total U.S. Volume	Federal & Indian	of U.S. Total
1950-79	116,356	94,391	81.1
1980	4,315	3,948	91.5
1981	4,174	3,499	83.8
1982	3,454	3,295	95.4
1983	3,094	3,094	100.0
1984	3,028	2,336	77.1
1985	2,509	2,267	90.4
1986	2,327	1,267	54.4
1987	2,443	1,568	64.2
1988	2,945	1,742	59.2
1989	2,981	2,071	69.5
1950-89	**147,626**	**119,478**	**80.9**

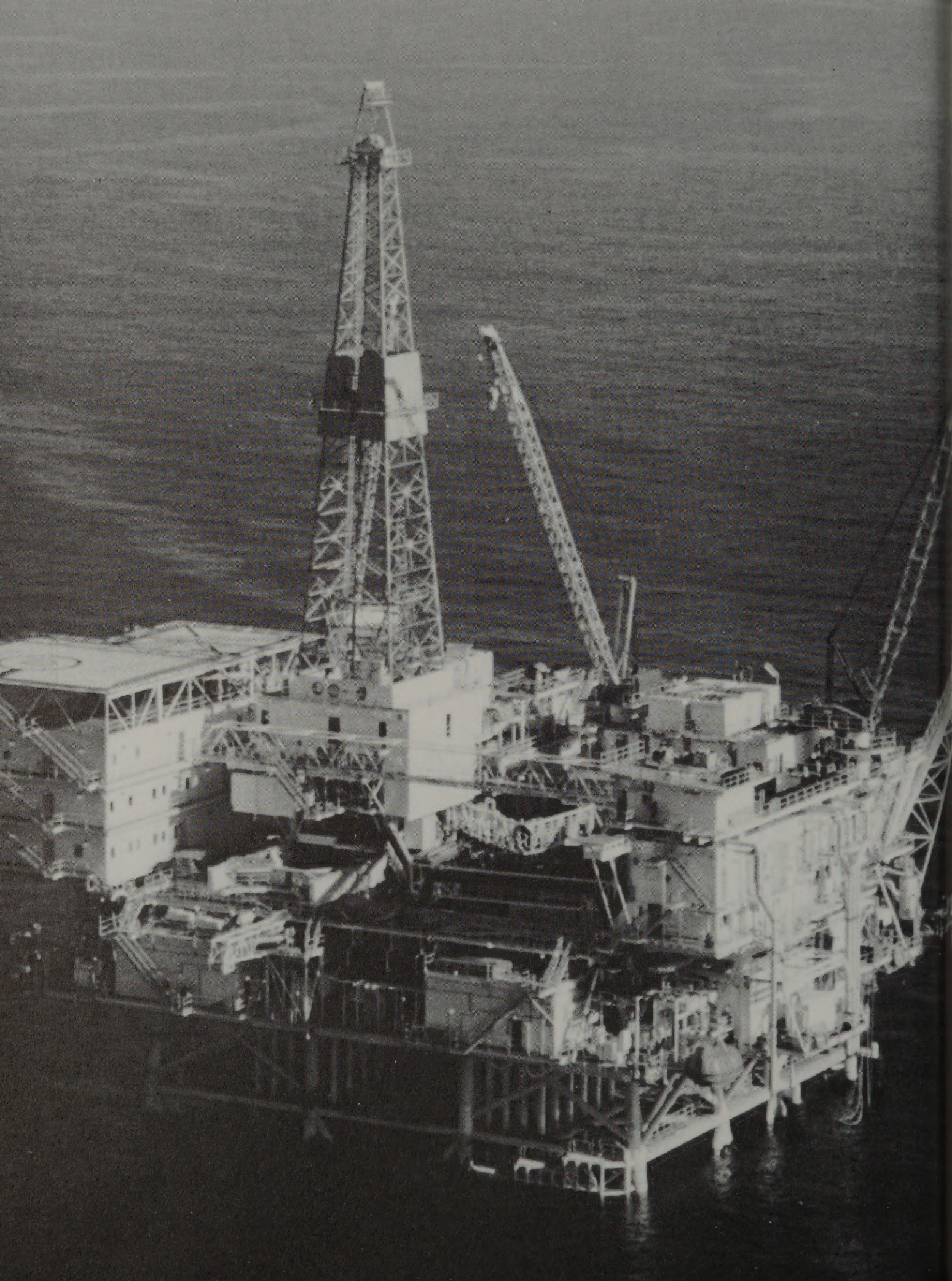
Table 4.--Summary of selected mineral production from OCS, Federal onshore, and Indian mineral leases as a percentage of total U.S. production, 1950-89 (cont.)

	Sodium in Tons		Percentage
	Total U.S. Volume	Federal & Indian	of U.S. Total
1950-79	85,371	48,326	56.6
1980	8,858	2,835	32.0
1981	8,889	3,266	36.7
1982	8,683	4,320	49.8
1983	8,890	4,210	47.4
1984	8,946	3,974	44.4
1985	8,900	5,945	66.8
1986	8,834	4,016	45.5
1987	9,273	3,996	43.1
1988	10,030	3,875	38.6
1989	10,145	4,365	43.0
1950-89	176,819	89,128	50.4

NOTE: U.S. production data are estimated. Data by calendar year are rounded: oil, including crude oil and condensate, in millions of barrels; natural gas in millions of Mcf; coal, including anthracite, bituminous, and lignite, in millions of short tons; and lead, phosphate, potash, and sodium in thousands of short tons.

SOURCE: Monthly Energy Review, Department of Energy, and Minerals Yearbook, Bureau of Mines, for U.S. totals; certain other data are estimated in part by the Minerals Management Service.

Petroleum pumping units at heavy-oil project. (Photo courtesy Amoco Corporation.)



Offshore Federal Mineral Revenues

The $58.6 billion in royalties, rents, and bonuses from offshore leases represented 84.1 percent of the $69.8 billion total revenues collected from all mineral leases during the period 1980-89 (tables 1 and 2). Offshore oil production accounted for 72.9 percent of all oil royalties collected, while offshore gas production generated 84.5 percent of all gas royalties collected and disbursed by the Department of the Interior during the decade (table 2 and figure 11).

Revenues from offshore royalties, rents, and bonuses totaled nearly $46.6 billion during the period 1980-85, or an annual average of $7.8 billion, when oil prices ranged from $28 to $38 per barrel. Average annual revenues fell 61.2 percent to just over $3 billion in the period 1986-89 following the worldwide reduction in petroleum prices in the first two quarters of 1986 (tables 1 and 2, and figure 12).

Offshore bonus revenues equaled $26.1 billion, or 56 percent, of total offshore collections in the first 6 years of the decade. Bonus revenues fell to $2.6 billion, or 21.3 percent of total offshore collections in the following 4 years (tables 1, 2, and 9, and figure 12). The decline in 1986-87 reflected diminished interest in exploration and development by U.S. energy firms under depressed market conditions. Bonus revenues rebounded in 1988 as oil prices rose. Bonus revenues declined again in 1989 as a result of a suspension of Outer Continental Shelf (OCS) lease sales in selected areas in February 1989 pending a review by a Presidential task force of the environmental effects of offshore drilling and exploration. Based on the findings of the task force, the President announced a decision on June 26, 1990, to suspend leasing activity in selected areas of the Atlantic, Pacific, and Gulf OCS until after the turn of the century.

Average annual offshore oil production equaled 333 million barrels and oil royalties averaged $1.6 billion per annum during the period 1980-85. Offshore oil production increased to 345 million barrels per year in the period 1986-89; however, average annual oil royalties fell 42.4 percent to $895 million because of the decline in the world oil price structure (table 6 and figure 10).

Offshore gas production averaged 4.5 billion Mcf per year for the first 6 years of the decade with gas royalties at $1.8 billion per annum. Average annual offshore gas production fell 5.3 percent to 4.2 billion Mcf in the following 4 years; however, average annual royalties fell 24.7 percent to $1.4 billion, again reflecting the decline in petroleum prices (table 6 and figure 10).

There were 2,256 offshore leases, licenses, and permits on over 10.7 million acres under the supervision of the Department at the end of 1980 (table 22). This included 1,168 producing and producible oil and gas leases on 5.3 million acres (table 19). The figures rose to 6,515 leases, licenses, and permits on 33.4 million acres at the end of 1989, including 1,688 producing and producible oil and gas leases on 7.9 million acres (tables 19 and 22).

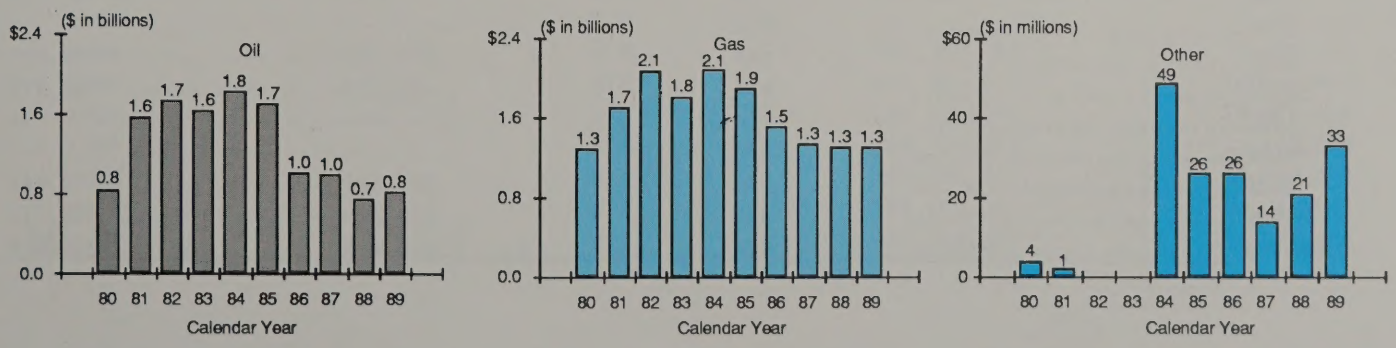


Figure 10. --- Royalties from OCS mineral leases, 1980-89

Offshore production platform, southern California.

Table 5.--Summary of volume, market value, and royalties by area and year from OCS mineral leases, 1953-89

Offshore California	Oil in Barrels		Oil Royalties
	Volume	Market Value	Received
1953-79	190,944,072	$ 750,624,877	$ 125,196,557
1980	10,198,886	111,407,469	18,567,912
1981	19,605,027	477,803,916	86,004,705
1982	28,434,202	679,293,086	160,992,461
1983	30,527,487	717,395,945	165,001,067
1984	30,254,306	645,004,111	122,270,587
1985	29,781,465	628,442,977	123,056,974
1986	29,227,846	358,544,517	63,973,110
1987	33,556,686	423,213,631	75,690,692
1988	32,615,118	322,221,171	53,723,584
1989	33,072,161	401,679,836	69,618,869
1953-89	**468,217,256**	**$5,515,631,536**	**$1,064,096,518**

	Gas in Mcf		Gas Royalties
	Volume	Market Value	Received
1953-79	73,495,845	$ 22,830,985	$ 3,797,188
1980	3,107,023	2,435,833	405,972
1981	12,766,307	13,919,105	2,158,289
1982	17,750,924	40,521,810	10,936,614
1983	16,024,292	45,508,989	11,832,337
1984	27,806,899	99,218,481	16,932,454
1985	49,164,213	151,241,817	25,676,251
1986	42,689,021	129,220,799	21,888,369
1987	40,986,158	111,589,318	18,085,583
1988	34,570,638	92,648,015	15,086,166
1989	28,574,912	77,322,251	12,920,381
1953-89	**346,936,232**	**$ 786,457,403**	**$ 139,719,604**

	Other Production		Other Royalties
	Volume	Market Value	Received
1953-79	N/A	$ 165,294	$ 11,240
1980	N/A	81	13
1981	N/A	473,727	29,744
1982	N/A	---	---
1983	N/A	---	---
1984	N/A	546,832	99,800
1985	N/A	96,664	18,216
1986	N/A	---	---
1987	N/A	---	---
1988	N/A	108,824	9,447
1989	N/A	679,216	48,216
1953-89	**N/A**	**$ 2,070,638**	**$ 216,676**

Table 5.--Summary of volume, market value, and royalties by area and year from OCS mineral leases, 1953-89

Offshore Louisiana	Oil in Barrels Volume	Oil in Barrels Market Value	Oil Royalties Received
1953-79	4,923,982,369	$26,069,590,952	$ 4,387,669,235
1980	256,688,082	4,832,841,921	785,526,142
1981	255,875,717	8,771,391,802	1,416,227,442
1982	275,513,489	8,914,054,253	1,485,972,842
1983	298,093,559	8,957,711,448	1,383,070,648
1984	318,024,622	9,539,401,648	1,597,398,742
1985	338,901,863	9,423,450,783	1,493,901,392
1986	340,152,276	5,740,306,865	899,889,359
1987	307,950,881	5,489,216,879	855,192,774
1988	261,936,530	4,086,676,490	632,688,293
1989	246,207,653	4,389,950,817	677,807,033
1953-89	**7,823,327,041**	**$96,214,593,858**	**$15,615,343,902**

	Gas in Mcf Volume	Gas in Mcf Market Value	Gas Royalties Received
1953-79	41,802,525,169	$19,357,793,513	$ 3,121,940,100
1980	4,013,707,434	6,578,100,474	1,077,439,212
1981	4,106,494,590	8,677,535,461	1,407,880,914
1982	3,803,740,050	10,079,911,140	1,680,321,200
1983	3,173,892,354	8,632,987,203	1,381,277,952
1984	3,578,740,570	9,656,366,956	1,551,459,784
1985	3,116,884,490	8,468,902,650	1,420,442,835
1986	2,927,832,264	6,605,111,673	1,081,739,674
1987	3,180,107,195	5,775,180,843	935,053,158
1988	3,096,881,628	5,705,494,358	919,994,644
1989	3,006,576,061	5,590,014,727	912,525,885
1953-89	**75,807,381,805**	**$95,127,398,998**	**$15,490,075,358**

	Other Production Volume	Other Production Market Value	Other Royalties Received
1953-79	N/A	$ 1,884,669,634	$ 168,847,331
1980	N/A	25,017,839	3,772,483
1981	N/A	8,124,178	1,162,929
1982	N/A	---	---
1983	N/A	---	---
1984	N/A	317,582,106	47,136,756
1985	N/A	163,480,919	26,175,510
1986	N/A	154,523,045	24,576,166
1987	N/A	88,715,367	12,962,808
1988	N/A	157,306,523	19,316,494
1989	N/A	243,639,283	30,762,803
1953-89	**N/A**	**$ 3,043,058,894**	**$ 334,713,280**

Table 5.--Summary of volume, market value, and royalties by area and year from OCS mineral leases, 1953-89 (cont.)

Offshore Texas	Oil in Barrels Volume	Oil in Barrels Market Value	Oil Royalties Received
1953-79	27,376,890	$ 165,277,711	$ 27,436,324
1980	10,502,007	198,862,396	33,143,332
1981	14,284,661	438,571,199	73,084,362
1982	17,263,766	559,824,449	93,322,735
1983	19,710,197	592,291,420	91,449,795
1984	21,960,086	644,586,996	103,778,515
1985	20,640,957	569,787,128	90,226,533
1986	19,835,882	330,215,223	51,175,234
1987	24,634,142	432,622,928	68,390,025
1988	26,115,776	406,007,277	61,042,482
1989	25,887,841	463,927,147	71,165,593
1953-89	**228,212,205**	**$ 4,801,973,874**	**$ 764,214,930**

	Gas in Mcf Volume	Gas in Mcf Market Value	Gas Royalties Received
1953-79	2,141,039,238	$ 1,487,531,140	$ 247,916,829
1980	624,642,526	1,304,676,689	217,446,169
1981	730,275,831	1,811,533,970	301,923,690
1982	858,020,298	2,299,494,400	383,325,783
1983	850,817,211	2,594,992,494	421,686,280
1984	931,293,582	3,083,711,594	522,884,515
1985	834,926,523	2,749,103,504	459,478,794
1986	978,370,552	2,383,174,819	414,710,941
1987	1,204,488,337	2,247,918,432	384,622,693
1988	1,178,422,561	2,147,898,236	375,221,062
1989	1,165,112,953	2,171,092,310	374,747,729
1953-89	**11,497,409,612**	**$24,281,127,588**	**$4,103,964,485**

	Other Production Volume	Other Production Market Value	Other Royalties Received
1953-79	N/A	$ 31,932,521	$ 3,037,515
1980	N/A	2,173,130	362,190
1981	N/A	469,843	78,149
1982	N/A	---	---
1983	N/A	---	---
1984	N/A	15,027,399	2,219,520
1985	N/A	(1,009,400)	(163,129)
1986	N/A	10,064,620	1,707,770
1987	N/A	7,177,760	1,166,293
1988	N/A	11,151,041	1,519,441
1989	N/A	14,377,118	1,793,054
1953-89	**N/A**	**$ 91,364,032**	**$ 11,720,803**

Table 6.--Summary of volume, market value, and royalties by commodity and year from OCS mineral leases, 1953-89

	Production Volume		
	Oil (bbl)	Gas (Mcf)	Other
1953-79	5,142,303,331	44,017,060,252	N/A
1980	277,388,975	4,641,456,983	N/A
1981	289,765,405	4,849,536,728	N/A
1982	321,211,457	4,679,511,272	N/A
1983	348,331,243	4,040,733,857	N/A
1984	370,239,014	4,537,841,051	N/A
1985	389,324,285	4,000,975,226	N/A
1986	389,216,004	3,948,891,837	N/A
1987	366,141,709	4,425,581,690	N/A
1988	320,667,424	4,309,874,827	N/A
1989	305,167,655	4,200,263,926	N/A
1953-89	**8,519,756,502**	**87,651,727,649**	**N/A**

	Market Value		
	Oil (bbl)	Gas (Mcf)	Other
1953-79	26,985,493,540	$ 20,868,155,638	$1,916,767,449
1980	5,143,111,786	7,885,212,996	27,191,050
1981	9,687,766,917	10,502,988,536	9,067,748
1982	10,153,171,788	12,419,927,350	---
1983	10,267,398,813	11,273,488,686	---
1984	10,828,992,755	12,839,297,031	333,156,337
1985	10,621,680,888	11,369,247,971	162,568,183
1986	6,429,066,605	9,117,507,291	164,587,665
1987	6,345,053,438	8,134,688,593	95,893,127
1988	4,814,904,938	7,946,040,609	168,566,388
1989	5,255,557,800	7,838,429,288	258,695,617
1953-89	**$106,532,199,268**	**$120,194,983,989**	**$3,136,493,564**

	Royalties Received		
	Oil (bbl)	Gas (Mcf)	Other
1953-79	4,540,302,116	$ 3,373,654,117	$ 171,896,086
1980	837,237,386	1,295,291,353	4,134,686
1981	1,575,316,509	1,711,962,893	1,270,822
1982	1,740,288,038	2,074,583,597	---
1983	1,639,521,510	1,814,796,569	---
1984	1,823,447,844	2,091,276,753	49,456,076
1985	1,707,184,899	1,905,597,880	26,030,597
1986	1,015,037,703	1,518,338,984	26,283,936
1987	999,273,491	1,337,761,434	14,129,101
1988	747,454,359	1,310,301,872	20,845,382
1989	818,591,495	1,300,193,995	32,604,073
1953-89	**$ 17,443,655,350**	**$ 19,733,759,447**	**$ 346,650,759**

Table 7.--Summary of minimum royalties by State or area from OCS mineral leases, 1957-89

	1957-79	1980	1981	1982	1983	1984
Alabama.....	$ ---	$ ---	$ ---	$ ---	$ ---	$ ---
Alaska.....	---	---	---	---	12,516	39,934
Atlantic States.....	---	---	---	---	---	73,728
California.....	261,671	77,592	154,227	171,507	481,932	178,119
Louisiana.....	27,570,463	1,277,987	1,211,959	1,349,850	2,540,294	2,010,462
Mississippi....	---	---	---	---	---	---
Texas.....	3,921,457	928,974	884,114	872,402	1,428,916	1,155,896
Total.....	**$31,753,591**	**$2,284,553**	**$2,250,300**	**$2,393,759**	**$4,463,658**	**$3,458,139**

Table 7.--Summary of minimum royalties by State or area from OCS mineral leases, 1957-89

1985	1986	1987	1988	1989	1957-89	
$ 34,038	$ 51,318	$ 101,859	$ 209,011	$ 191,949	$ 588,175	Alabama
112,088	56,792	71,320	130,696	102,480	525,826	Alaska
---	---	---	---	---	73,728	Atlantic States
451,785	445,015	434,917	646,162	526,300	3,829,227	California
2,139,530	3,199,547	19,239,027	8,727,373	26,261,190	95,527,682	Louisiana
---	---	15,594	32,874	15,594	64,062	Mississippi
1,329,880	1,423,936	1,536,615	7,076,705	11,793,401	32,352,296	Texas
$4,067,321	**$5,176,608**	**$21,399,332**	**$16,822,821**	**$38,890,914**	$132,960,996	**Total**

Table 8.--Summary of rents by State or area from OCS mineral leases, 1953-89

	1953-79	1980	1981	1982	1983	1984
Alabama.....	$ 1,112,997	$ 207,360	$ 154,602	$ 85,485	$ 85,485	$ 122,820
Alaska.....	9,231,767	2,036,436	1,722,966	1,965,516	4,248,241	4,601,574
Atlantic States....	9,846,576	3,059,712	4,474,698	4,167,276	4,406,382	3,889,152
California..	17,143,309	2,213,979	2,275,512	2,051,874	1,821,505	1,937,130
Florida.....	6,531,840	379,245	449,260	604,800	604,800	138,240
Louisiana...	148,496,959	7,361,904	8,205,515	7,288,316	13,620,158	16,323,567
Mississippi.	501,120	---	---	---	---	49,731
Oregon.....	3,759,021	---	---	---	---	---
Texas.....	43,603,420	3,796,514	4,448,482	3,891,934	7,676,526	8,545,621
Washington..	1,399,080	---	---	---	---	---
Total...	$241,626,089	$19,055,150	$21,731,035	$20,055,201	$32,463,097	$35,607,835

Table 8.--Summary of rents by State or area from OCS mineral leases, 1953-89

1985	1986	1987	1988	1989	1953-89	
$ 340,409	$ 450,034	$ 548,601	$ 130,884	$ 160,020	$ 3,398,697	Alabama
11,603,554	7,561,960	7,677,314	16,915,379	18,708,334	86,273,041	Alaska
2,359,296	1,993,729	1,757,182	1,308,672	1,161,216	38,423,891	Atlantic States
1,995,694	1,862,983	1,848,659	1,130,759	1,104,568	35,385,972	California
1,269,924	138,240	---	537,807	(14,825)	10,639,331	Florida
33,756,447	34,110,029	52,115,828	35,752,757	48,498,402	405,529,882	Louisiana
334,681	103,257	138,240	17,280	51,840	1,196,149	Mississippi
---	---	---	---	---	3,759,021	Oregon
10,206,431	6,738,005	10,556,888	5,640,007	9,578,098	114,681,926	Texas
---	---	---	---	---	1,399,080	Washington
$61,866,436	**$52,958,237**	**$74,642,712**	**$61,433,545**	**$79,247,653**	**$700,686,990**	**Total**

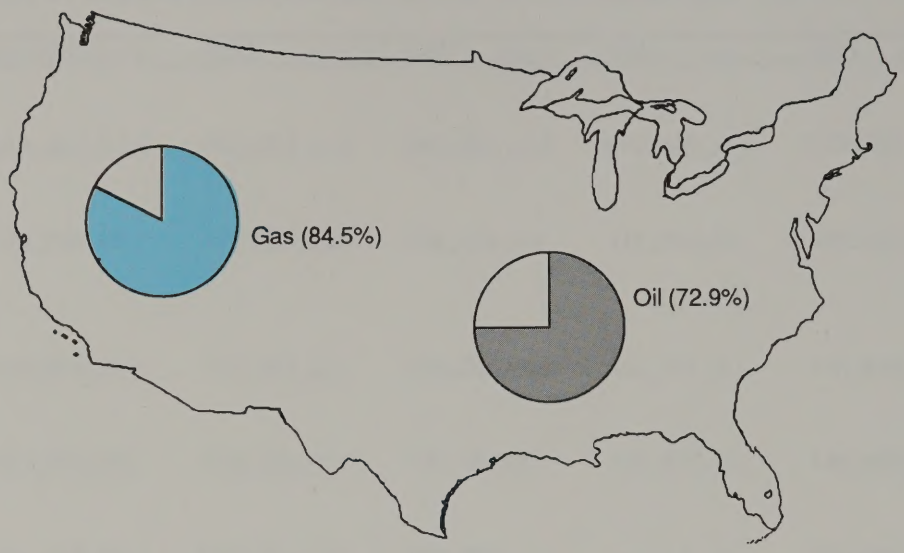


Figure 11. --- OCS royalties as a percentage of total Federal and Indian royalties from oil and gas, Calendar Years 1980-89

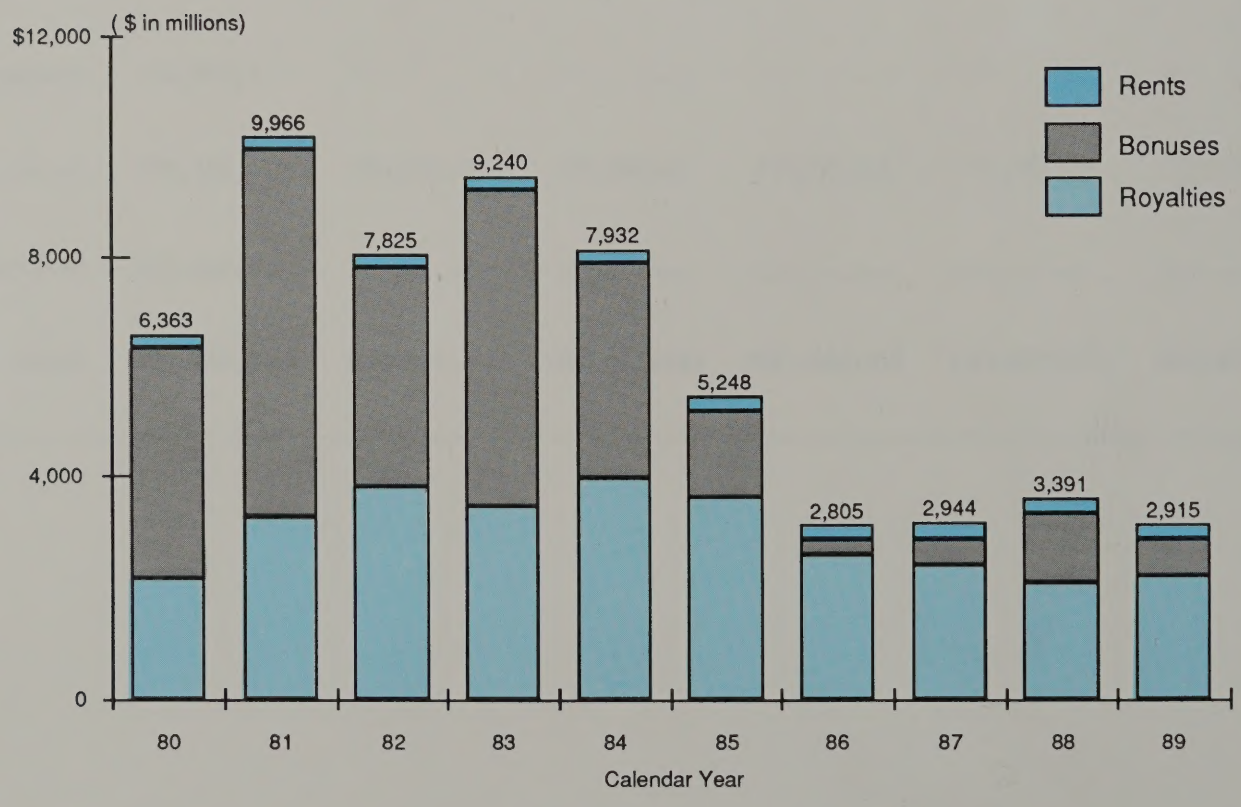


Figure 12. --- Revenues from OCS mineral leases by source, 1980-89

Table 9.--Summary of bonuses paid on lease sales of OCS oil & gas tracts, 1954-89

Year	No. of Sales	Tracts Leased	Acres Leased	Bonuses Paid
1954*	3	114	486,870	$ 140,969,005
1955	1	121	402,567	108,528,726
1959	2	42	171,300	89,746,992
1960**	2	148	707,026	282,717,065
1962	3	420	1,929,177	489,481,061
1963	1	57	312,945	12,807,337
1964	2	124	613,524	95,874,327
1965*	1	50	72,000	33,740,309
1966	3	42	141,768	209,199,893
1967**	2	159	746,951	510,109,742
1968	3	197	934,164	1,346,487,097
1969*	3	40	114,282	111,660,685
1970	2	138	598,540	945,064,773
1971	1	11	37,222	96,304,523
1972	2	178	826,195	2,251,347,556
1973	2	187	1,032,570	3,082,462,611
1974	4	356	1,762,158	5,022,860,815
1975	4	321	1,679,877	1,088,133,152
1976	4	246	1,277,937	2,242,898,467
1977	2	211	1,100,734	1,568,564,745
1978	4	249	1,297,274	1,767,042,064
1979	6	351	1,767,443	5,078,861,692
1980	3	218	1,134,227	4,204,640,257
1981	7	430	2,265,537	6,652,980,897
1982	5	357	1,886,360	3,987,490,009
1983	7	1,251	6,587,823	5,749,016,369
1984	6	1,387	7,397,939	3,928,876,308
1985	3	670	3,529,323	1,543,577,714
1986	2	142	734,418	187,094,747
1987	2	640	3,447,809	497,247,006
1988***	7	1,538	8,360,863	1,234,587,634
1989	2	1,049	5,580,867	645,646,870
Total	**101**	**11,444**	**58,937,690**	**$55,206,020,448**

*Sales include one sulfur lease.
**Sales include one salt lease.
***Sales include one salt and sulfur lease.

Onshore Federal Mineral Revenues

The $9.8 billion in royalties, minimum royalties, rents, and bonuses from Federal onshore lands represented 14 percent of the $69.8 billion total revenues collected from all mineral leases in 1980-89. Royalties and minimum royalties constituted 85.4 percent of the revenues derived from Federal onshore mineral leases during the period (tables 1 and 2, and figure 14).

Revenues from Federal onshore lands totaled $6.6 billion during the period 1980-85, an annual average of $1.1 billion, when oil prices ranged from $28 to $38 per barrel. Average annual revenues fell 26.2 percent to $807.5 million over the next 4 years following the worldwide decline in petroleum prices in 1986 (tables 1 and 2, and figure 14).

Oil production on Federal onshore lands averaged 154.8 million barrels per year while average annual oil royalties totaled $513 million from 1980-85. Oil production fell 6.5 percent to 144.7 million barrels per year from 1986-89; however, average annual oil royalties dropped 48.7 percent to $262.9 million because of the decline in the international oil price structure (table 10 and figure 13). Wyoming produced 46.9 percent of the oil from Federal lands during the decade (table 10 and figure 16).

Onshore gas production averaged 1.1 billion Mcf per year for the first 6 years of the decade, with gas royalties at $314.3 million per annum. Average annual gas production declined 17.2 percent to 877 million Mcf in the following 4 years; however, average annual royalties fell 39 percent to $191.8 million, reflecting the drop in petroleum prices and a continued glut in the supply of natural gas on the open market (table 10 and figure 13). New Mexico and Wyoming produced 77.4 percent of the gas from Federal onshore leases during the 10-year period (table 10 and figure 17).

Coal production and royalties on Federal onshore lands experienced material growth during the latter half of the decade. Coal production averaged 100.2 million short tons per year, generating an annual average royalty of $51.8 million during the period 1980-84. Annual average coal production jumped 80.7 percent to 181.1 million short tons over the next 5 years; however, the annual average royalty rose 182.7 percent to $146.3 million (table 10 and figure 13).

The increase in coal production was associated with accelerating demand by public utility companies. The sustained drought in Canada and the United States in 1988 reduced hydroelectric power production, particularly in the western sections of both nations. Western utilities increased coal consumption to offset the loss in hydroelectric resources. Electric utility companies withdrew significant volumes from their inventories in 1988 to meet much of their energy consumption requirements. Utility companies

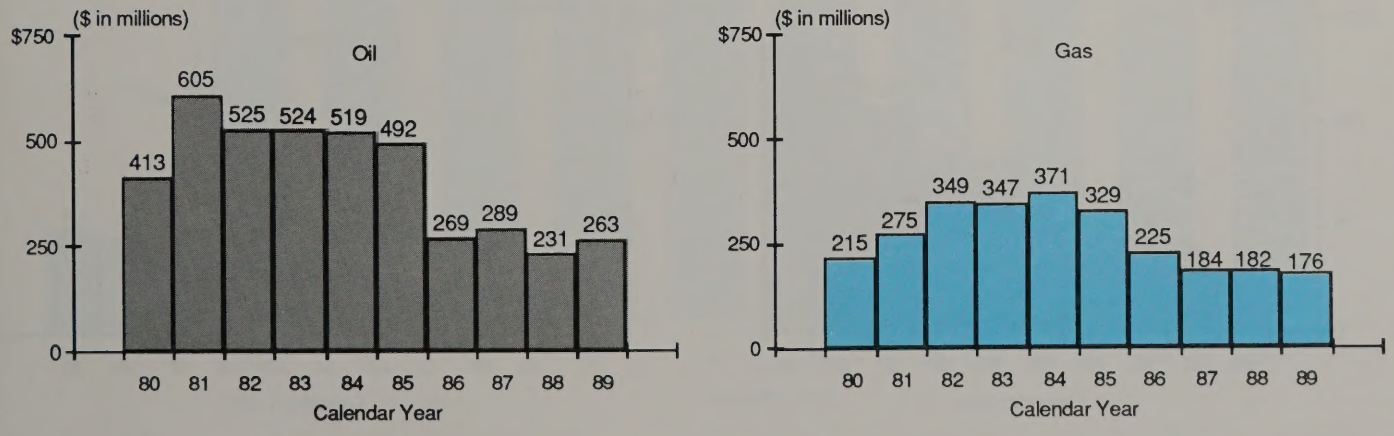


Figure 13. --- Royalties from Federal onshore mineral leases, 1980-89

Oil and gas drilling operation. (Photo courtesy Conoco, Inc.)

nationwide adjusted their inventory plans in 1989, relying instead on supplies from coal producers. Test burns of low-sulfur western coal by eastern and midwestern utility companies further stimulated coal production on Federal lands. The tests were designed to assess the use of low-sulfur coal in place of plant modifications that may be required under the Clean Air Act. Coal production peaked at a record level of 975 million short tons in 1989 (table 4). The Department of Energy expects coal production to rise to 999 million short tons in 1990 and to exceed 1 billion short tons in 1991, primarily to meet higher coal consumption levels forecast in the electric utility sector. Coal inventories are projected to remain at their present low level in all coal-consuming sectors.

Coal royalties on Federal lands rose as a function of increased demand and the renegotiation of a series of coal leases from a cents-per-ton basis to an ad valorem basis during the latter half of the decade. Wyoming produced 65 percent of the coal on Federal lands during the decade (figure 18).

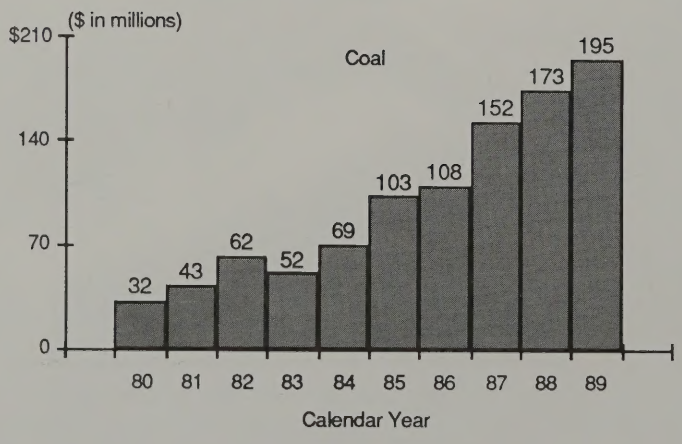
Royalties from mineral resources other than oil, gas, and coal totaled $541 million from 1980 through 1989. Royalties averaged $44 million per annum in the first half of the decade. Average annual royalties increased 46.2 percent to $64.2 million in the last half of the period (table 10 and figure 13). Significant revenue gains were realized through carbon dioxide, gas plant products, geothermal and heated water resources, phosphate, and sulfur.

Federal onshore rent collections equaled $772.1 million from 1982-89. Information addressing onshore rent receipts for 1980-81 is incomplete. Rent collections averaged $127 million per year during the period 1982-85 when oil prices were high. Annual rent collections fell 48 percent to $66.1 million over the next 4 years as market conditions declined in the petroleum industry (tables 1, 2, and 12).

Bonus revenues generated from competitive lease sales totaled $654.5 million over the decade. The majority of revenues were raised through oil and gas lease sales. Bonus receipts were relatively stable throughout the period with the exception of 1981-82, when collections exceeded $125 million annually (tables 1, 2, and 13). Oil and gas lease sales in Arkansas and New Mexico collectively produced $72.9 million in 1981. Oil and gas lease sales in Alaska netted $71.4 million and geothermal lease sales in California generated an additional $23.4 million in 1982.

Minimum royalty collections totaled $50 million from 1985-89. Minimum royalty receipts were reported under royalty revenues prior to 1985 (tables 1, 2, and 11).

Mineral production in New Mexico and Wyoming dominated onshore lease activity during the decade (table 10). The two States collectively received 61.7 percent of the $4.5 billion disbursed to 30 States during the period (table 15 and figure 21).



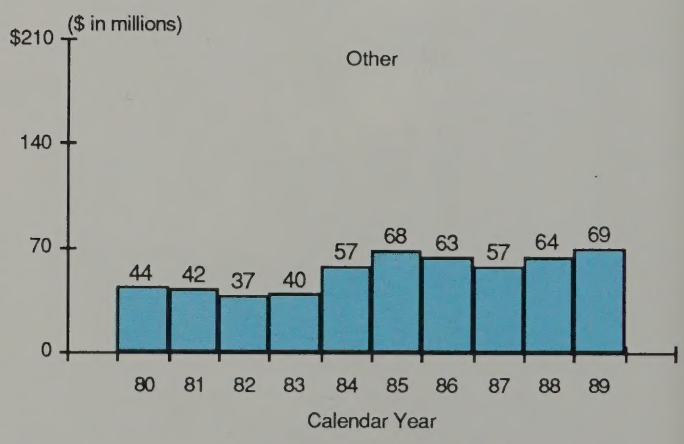


Figure 13. --- Royalties from Federal onshore mineral leases, 1980-89 (cont.)

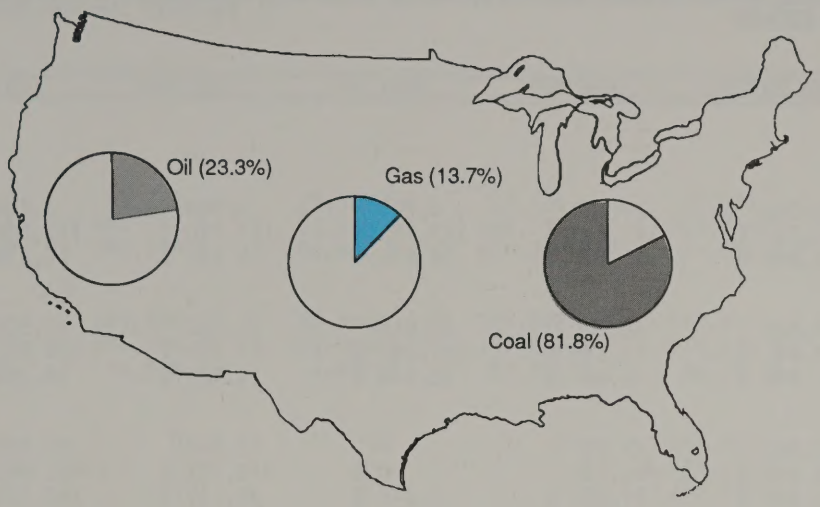


Figure 14. --- Federal onshore royalties as a percentage of total Federal and Indian royalties from oil, gas and coal, Calendar Years 1980-89

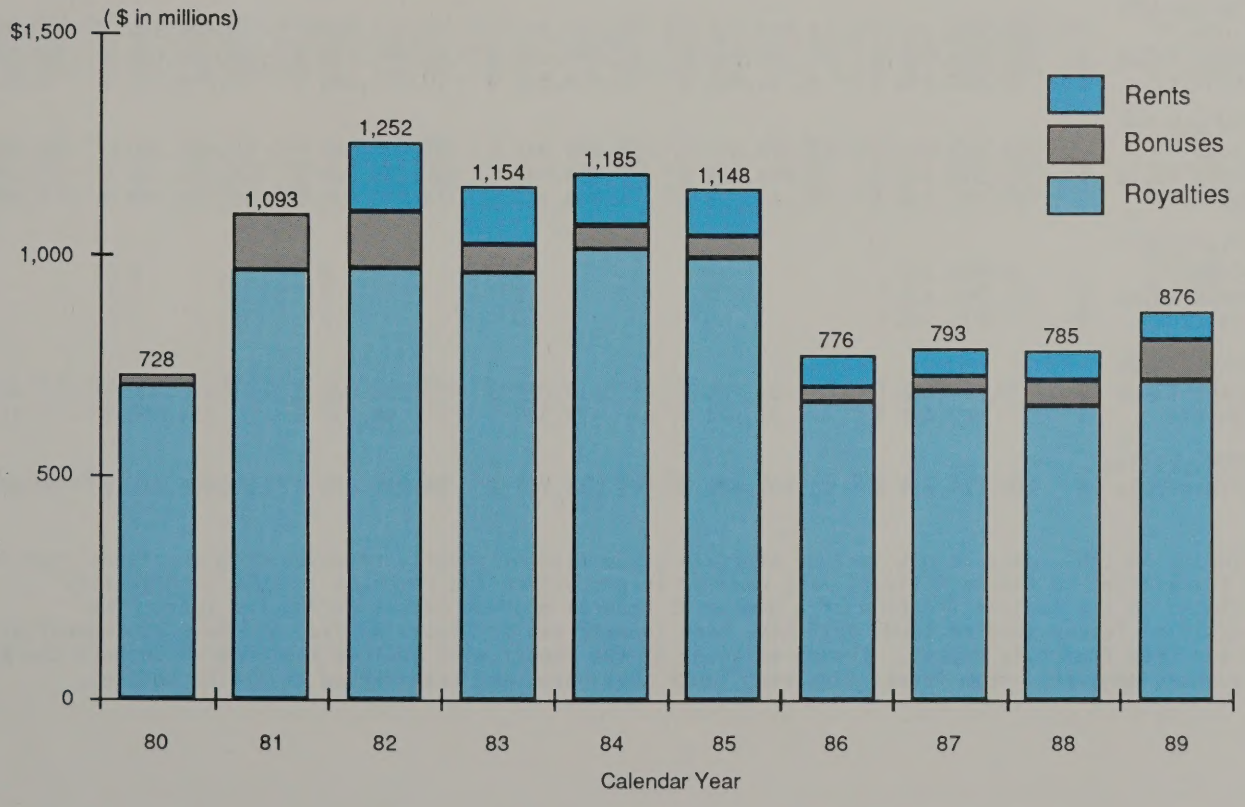


Figure 15. --- Revenues from Federal onshore mineral leases by source, 1980-89

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89

	1920-79	1980	1981	1982	1983	1984
Alabama						
Oil in Barrels						
Volume	492,015	10,642	4,243	3,900	3,750	18,578
Market Value	$ 1,728,259	$ 141,479	$ 153,722	$ 124,750	$ 113,888	$ 536,018
Royalties	$ 182,849	$ 45,882	$ 34,672	$ 15,596	$ 14,236	$ 67,023
Gas in Mcf						
Volume	7,826	18,700	40,055	45,000	47,500	170,213
Market Value	$ 7,961	$ 51,134	$ 101,067	$ 117,000	$ 129,675	$ 649,312
Royalties	$ 996	$ 6,557	$ 12,746	$ 14,625	$ 16,209	$ 81,165
Coal in Tons						
Volume	1,645,820	27,780	0	23,544	95,652	23,197
Market Value	$ 5,348,206	$ 791,715	$ 0	$ 978,722	$ 4,021,962	$ 1,016,025
Royalties	$ 262,924	$ 31,669	$ 7,247	$ 39,149	$ 160,879	$ 40,641
Other Products						
Market Value	$ 27,381	$ 2,497	$ 120,439	$ 10,879	$ 12,619	$ 14,150
Royalties	$ 3,866	$ 792	$ 3,516	$ 1,872	$ 2,395	$ 2,968
Total Royalties All Minerals	**$ 450,635**	**$ 84,900**	**$ 58,181**	**$ 71,242**	**$ 193,719**	**$ 191,797**

	1920-79	1980	1981	1982	1983	1984
Alaska*						
Oil in Barrels						
Volume	187,975,957	3,937,311	3,095,291	3,141,500	3,125,100	1,757,541
Market Value	$ 701,012,392	$ 37,946,840	$ 91,346,010	$ 87,396,530	$ 81,190,098	$ 44,605,543
Royalties	$ 83,220,549	$ 4,751,805	$ 11,418,252	$ 10,924,566	$ 10,148,762	$ 5,557,160
Gas in Mcf						
Volume	752,777,981	81,370,875	88,773,942	93,500,000	87,493,000	76,556,222
Market Value	$ 191,310,505	$ 49,959,224	$ 77,984,832	$ 105,655,000	$ 104,991,100	$ 55,120,480
Royalties	$ 23,021,434	$ 6,244,903	$ 9,748,104	$ 13,206,875	$ 13,123,950	$ 6,890,060
Coal in Tons						
Volume	18,376,127	0	0	0	0	0
Market Value	$ 131,760,234	0	0	0	0	0
Royalties	$ 2,075,108	0	0	0	0	0
Other Products						
Market Value	$ 2,209,888	$ 87,788	$ 619,015	$ 787,500	$ 1,872,000	$ 941,066
Royalties	$ 262,462	$ 10,974	$ 77,377	$ 98,437	$ 234,000	$ 117,664
Total Royalties All Minerals	**$ 108,579,553**	**$ 11,007,682**	**$ 21,243,733**	**$ 24,229,878**	**$ 23,506,712**	**$ 12,564,884**

*Beginning in 1984, data do not include minerals production or royalty revenues from any lands that have been transferred to Alaska Natives. The decline in production and revenues in 1989 is primarily attributed to the reclassification of a number of Federal onshore leases during the year. The reclassified leases involve lands that have been transferred to Alaska Natives and have subsequently been excluded from this report. Future editions of the report will include the Federal onshore share of revenues generated from leases involving lands that have been transferred to Alaska Natives.

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89

1985	1986	1987	1988	1989	1920-89	
						Alabama
						Oil in Barrels
51,190	97,723	19,500	31,535	18,671	751,747	Volume
$ 1,421,449	$ 1,697,511	$ 51,490	$ 484,215	$ 323,274	$ 6,776,055	Market Value
$ 169,282	$ 160,195	$ 89,868	$ 106,374	$ 71,091	$ 957,068	Royalties
						Gas in Mcf
245,457	284,485	(32,355)	124,892	116,542	1,068,315	Volume
$ 792,608	$ 536,224	$ (41,043)	$ 197,627	$ 215,674	$ 2,757,239	Market Value
$ 99,004	$ 46,416	$ (4,971)	$ 24,737	$ 26,047	$ 323,531	Royalties
						Coal in Tons
0	0	0	0	147,473	1,963,466	Volume
0	0	0	0	$ 5,649,348	$ 17,805,978	Market Value
0	0	0	0	$ 395,580	$ 938,089	Royalties
						Other Products
$ 7,029	$ 12,129	$ 657	$ 699	$ 13,397	$ 221,876	Market Value
$ 1,731	$ 2,534	$ 260	$ 279	$ 1,549	$ 21,762	Royalties
						Total Royalties
$ 270,017	**$ 209,145**	**$ 85,157**	**$ 131,390**	**$ 494,267**	2,240,450	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						Alaska
						Oil in Barrels
1,642,880	1,531,448	1,375,912	739,102	2,854	208,324,896	Volume
$ 40,204,022	$ 21,920,806	$ 22,087,643	$ 10,972,761	$ 47,972	$ 1,138,730,617	Market Value
$ 5,004,348	$ 2,720,962	$ 2,737,168	$ 1,359,683	$ 6,001	$ 137,849,256	Royalties
						Gas in Mcf
63,418,259	50,137,932	47,085,856	28,776,378	4,356,306	1,374,246,751	Volume
$ 83,209,227	$ 77,629,588	$ 57,790,567	$ 35,970,473	$ 3,877,112	$ 843,498,108	Market Value
$ 10,918,247	$ 10,901,543	$ 8,224,121	$ 4,496,309	$ 550,550	$ 107,326,096	Royalties
						Coal in Tons
0	0	0	0	0	18,376,127	Volume
0	0	0	0	0	$ 131,760,234	Market Value
0	0	0	0	0	$ 2,075,108	Royalties
						Other Products
$ 1,453,224	$ 592,698	$ 868,799	$ 460,133	$ 4,479	$ 9,896,590	Market Value
$ 181,942	$ 74,087	$ 108,515	$ 57,234	$ 421	$ 1,223,113	Royalties
						Total Royalties
$ 16,104,537	**$ 13,696,592**	**$ 11,069,804**	**$ 5,913,226**	**$ 556,972**	248,473,573	**All Minerals**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

	1920-79	1980	1981	1982	1983	1984
Arizona						
Gas in Mcf						
Volume	124,822	0	0	0	0	0
Market Value	$ 62,572	0	0	0	0	0
Royalties	$ 37,551	0	0	0	0	0
Other Products						
Market Value	$ 8,004,634	0	0	0	0	0
Royalties	$ 519,428	0	0	0	0	0
Total Royalties All Minerals	**$ 556,979**	**0**	**0**	**0**	**0**	**0**

	1920-79	1980	1981	1982	1983	1984
Arkansas						
Oil in Barrels						
Volume	47,634	478	225	329	450	121
Market Value	$ 127,261	$ 7,257	$ 16,344	$ 11,542	$ 12,825	$ 3,267
Royalties	$ 18,902	$ 1,209	$ 2,290	$ 1,443	$ 1,603	$ 408
Gas in Mcf						
Volume	38,225,971	4,935,402	5,328,022	5,044,312	4,750,000	5,373,582
Market Value	$ 23,739,257	$ 8,635,188	$ 7,610,781	$ 11,682,636	$ 12,604,600	$ 16,233,502
Royalties	$ 3,388,949	$ 1,237,931	$ 1,012,211	$ 1,622,411	$ 1,575,575	$ 1,973,767
Other Products						
Market Value	$ 1,741,590	$ (42,811)	$ 8,415	$ 11,992	$ 7,978	$ 12,758
Royalties	$ 68,106	$ (5,673)	$ 260	$ 600	$ 399	$ 637
Total Royalties All Minerals	**$ 3,475,957**	**$ 1,233,467**	**$ 1,014,761**	**$ 1,624,454**	**$ 1,577,577**	**$ 1,974,812**

	1920-79	1980	1981	1982	1983	1984
California						
Oil in Barrels						
Volume	1,243,064,488	17,582,943	20,544,840	21,702,000	20,650,000	20,065,310
Market Value	$ 3,028,575,727	$ 411,036,298	$ 487,056,185	$ 518,258,800	$ 454,300,000	$ 427,536,380
Royalties	$ 372,783,866	$ 50,435,845	$ 55,445,428	$ 57,124,100	$ 56,787,500	$ 53,446,459
Gas in Mcf						
Volume	1,566,346,813	7,889,193	6,293,799	6,050,000	5,750,100	8,770,616
Market Value	$ 280,209,817	$ 13,949,590	$ 13,927,177	$ 16,892,500	$ 18,802,827	$ 30,753,749
Royalties	$ 48,024,861	$ 3,110,719	$ 2,982,241	$ 3,231,400	$ 3,595,100	$ 3,718,648
Coal in Tons						
Volume	1,257	0	0	0	0	0
Market Value	$ 3,190	0	0	0	0	0
Royalties	$ 299	0	0	0	0	0
Other Products						
Market Value	$ 1,319,985,930	$ 114,215,427	$ 180,939,574	$ 164,521,234	$ 47,455,875	$ 180,457,994
Royalties	$ 58,182,724	$ 6,110,397	$ 9,541,043	$ 8,850,801	$ 4,156,176	$ 14,664,423
Total Royalties All Minerals	**$ 478,991,750**	**$ 59,656,961**	**$ 67,968,712**	**$ 69,206,301**	**$ 64,538,776**	**$ 71,829,530**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

1985	1986	1987	1988	1989	1920-89	
						Arizona
						Gas in Mcf
0	0	0	0	0	124,822	Volume
0	0	0	0	0	$ 62,572	Market Value
0	0	0	0	0	$ 37,551	Royalties
						Other Products
0	0	0	0	0	$ 8,004,634	Market Value
0	0	0	0	0	$ 519,428	Royalties
						Total Royalties
0	**0**	**0**	**0**	**0**	**$ 556,979**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						Arkansas
						Oil in Barrels
609	3,705	2,479	985	0	57,015	Volume
$ 15,250	$ 56,403	$ 40,952	$ 14,690	0	$ 305,791	Market Value
$ 1,903	$ 6,945	$ 5,124	$ 1,836	0	$ 41,663	Royalties
						Gas in Mcf
5,645,865	5,018,855	5,244,438	7,165,772	5,419,409	92,151,628	Volume
$ 17,526,046	$ 13,774,736	$ 11,658,965	$ 14,268,539	$ 12,738,484	$ 150,472,734	Market Value
$ 2,317,457	$ 1,797,837	$ 1,505,415	$ 1,865,054	$ 1,664,669	$ 19,961,276	Royalties
						Other Products
$ 28,317	$ 35,209	$ 113,558	$ 218,306	$ 81,140	$ 2,216,452	Market Value
$ 1,416	$ 1,760	$ 5,203	$ 11,036	$ 4,053	$ 87,797	Royalties
						Total Royalties
$ 2,320,776	**$ 1,806,542**	**$ 1,515,742**	**$ 1,877,926**	**$ 1,668,722**	**$ 20,090,736**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						California
						Oil in Barrels
24,710,939	20,826,447	19,884,609	18,712,811	17,721,457	1,445,465,844	Volume
$ 528,544,151	$ 252,362,151	$ 257,417,946	$ 194,252,318	$ 225,160,396	$ 6,784,500,352	Market Value
$ 55,194,237	$ 30,908,583	$ 31,791,870	$ 23,950,409	$ 28,644,835	$ 816,513,132	Royalties
						Gas in Mcf
6,111,398	6,524,243	5,156,771	4,174,018	6,502,489	1,629,569,440	Volume
$ 18,960,223	$ 15,239,086	$ 10,174,615	$ 7,556,939	$ 12,838,485	$ 439,305,008	Market Value
$ 4,041,505	$ 3,065,423	$ 2,126,547	$ 1,656,985	$ 2,073,986	$ 77,627,415	Royalties
						Coal in Tons
0	0	0	0	0	1,257	Volume
0	0	0	0	0	$ 3,190	Market Value
0	0	0	0	0	$ 299	Royalties
						Other Products
$ 209,134,018	$ 237,903,911	$ 215,299,231	$ 218,097,810	$ 234,664,845	$ 3,122,675,849	Market Value
$ 18,735,038	$ 22,042,944	$ 19,188,719	$ 18,474,034	$ 19,076,470	$ 199,022,769	Royalties
						Total Royalties
$ 77,970,780	**$ 56,016,950**	**$ 53,107,136**	**$ 44,081,428**	**$ 49,795,291**	**$ 1,093,163,615**	**All Minerals**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

	1920-79	1980	1981	1982	1983	1984
Colorado						
Oil in Barrels						
Volume	441,897,376	9,782,634	9,678,585	9,121,990	10,150,300	9,344,013
Market Value	$ 1,690,904,900	$ 176,872,098	$ 324,773,799	$ 250,772,958	$ 260,816,260	$ 258,485,907
Royalties	$ 269,631,227	$ 30,238,440	$ 52,858,527	$ 40,604,232	$ 44,589,987	$ 41,003,709
Gas in Mcf						
Volume	1,009,985,891	55,762,010	48,254,910	53,833,000	48,981,201	60,598,213
Market Value	$ 262,446,998	$ 76,838,840	$ 98,611,608	$ 118,274,286	$ 118,165,441	$ 150,766,403
Royalties	$ 29,946,731	$ 9,199,101	$ 11,964,638	$ 15,923,374	$ 14,380,881	$ 18,122,573
Coal in Tons						
Volume	64,471,077	9,390,841	11,144,383	9,691,354	10,405,510	11,735,302
Market Value	$ 607,325,094	$ 182,050,641	$ 229,824,111	$ 225,322,986	$ 239,489,526	$ 266,743,414
Royalties	$ 14,172,497	$ 8,865,003	$ 12,892,030	$ 11,642,321	$ 12,960,338	$ 15,170,851
Other Products						
Market Value	$ 43,211,380	$ 9,913,848	$ 8,413,294	$ 8,325,580	$ 21,807,547	$ 48,104,935
Royalties	$ 2,187,034	$ 637,178	$ 452,441	$ 442,221	$ 1,961,369	$ 5,692,273
Total Royalties All Minerals	**$ 315,937,489**	**$ 48,939,722**	**$ 78,167,636**	**$ 68,612,148**	**$ 73,892,575**	**$ 79,989,406**

	1920-79	1980	1981	1982	1983	1984
Florida						
Oil in Barrels						
Volume	7,256	910	0	0	0	0
Market Value	$ 90,418	$ 16,865	0	0	0	0
Royalties	$ 11,303	$ 2,108	0	0	0	0
Other Products						
Market Value	$ 342,263	$ 2,249,442	$ 4,135,528	$ 2,925,038	$ 12,933,446	$ 5,951,727
Royalties	$ 20,267	$ 113,749	$ 209,133	$ 146,252	$ 651,259	$ 297,721
Total Royalties All Minerals	**$ 31,570**	**$ 115,857**	**$ 209,133**	**$ 146,252**	**$ 651,259**	**$ 297,721**

	1920-79	1980	1981	1982	1983	1984
Georgia						
Other Products						
Market Value	$ 2,705,921	$ 204,373	$ 190,070	$ 71,156	$ 4,083	$ 10,014
Royalties	$ 99,013	$ 9,462	$ 9,962	$ 3,188	$ 184	$ 495
Total Royalties All Minerals	**$ 99,013**	**$ 9,462**	**$ 9,962**	**$ 3,188**	**$ 184**	**$ 495**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

1985	1986	1987	1988	1989	1920-89	
						Colorado
						Oil in Barrels
7,860,164	7,412,090	8,102,745	7,919,326	7,588,626	528,857,849	Volume
$ 198,790,675	$ 107,539,629	$ 141,216,844	$ 118,782,823	$ 143,125,594	$ 3,672,081,487	Market Value
$ 33,712,986	$ 16,629,286	$ 21,440,859	$ 17,397,637	$ 21,947,984	$ 590,054,874	Royalties
						Gas in Mcf
54,625,792	44,469,099	37,251,492	38,942,606	51,832,494	1,504,536,708	Volume
$ 145,418,918	$ 106,678,570	$ 63,616,259	$ 63,152,510	$ 80,821,748	$ 1,284,791,581	Market Value
$ 16,010,584	$ 13,707,153	$ 7,064,882	$ 7,827,994	$ 9,640,635	$ 153,788,546	Royalties
						Coal in Tons
9,785,279	10,296,466	6,922,458	8,992,859	10,583,253	163,418,782	Volume
$ 246,710,955	$ 194,789,903	$ 173,920,774	$ 183,596,741	$ 215,324,252	$ 2,765,098,397	Market Value
$ 14,727,801	$ 20,737,812	$ 14,780,341	$ 12,146,642	$ 16,103,220	$ 154,198,856	Royalties
						Other Products
$ 110,046,454	$ 104,686,185	$ 85,326,453	$ 115,312,912	$ 155,485,185	$ 710,633,773	Market Value
$ 13,174,761	$ 12,544,583	$ 10,489,745	$ 9,346,251	$ 10,210,984	$ 67,138,840	Royalties
						Total Royalties
$ 77,626,132	**$ 63,618,834**	**$ 53,775,827**	**$ 46,718,524**	**$ 57,902,823**	**$ 965,181,116**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						Florida
						Oil in Barrels
0	25,384	21,906	41,466	35,708	132,630	Volume
0	$ 360,374	$ 387,618	$ 652,781	$ 642,714	$ 2,150,770	Market Value
0	$ 45,047	$ 48,452	$ 81,597	$ 80,938	$ 269,445	Royalties
						Other Products
$ 4,129,622	$ 1,621,856	$ 4,368	0	0	$ 34,293,290	Market Value
$ 206,482	$ 81,093	$ 218	0	0	$ 1,726,174	Royalties
						Total Royalties
$ 206,482	**$ 126,140**	**$ 48,670**	**$ 81,597**	**$ 80,938**	**$ 1,995,619**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						Georgia
						Other Products
0	0	0	$ 136	$ 192	$ 3,185,945	Market Value
0	0	0	$ 7	$ 10	$ 122,321	Royalties
						Total Royalties
0	**0**	**0**	**$ 7**	**$ 10**	**$ 122,321**	**All Minerals**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

	1920-79	1980	1981	1982	1983	1984
Idaho						
Coal in Tons						
Volume	31,574	0	0	0	0	0
Market Value $	88,984	0	0	0	0	0
Royalties $	7,228	0	0	0	0	0
Other Products						
Market Value $	230,391,313	$ 39,715,880	$ 38,526,050	$ 14,580,941	$ 44,932,792	$ 62,331,421
Royalties $	14,403,829	$ 2,397,104	$ 2,228,457	$ 731,730	$ 2,251,340	$ 3,125,387
Total Royalties All Minerals $	**14,411,057**	**$ 2,397,104**	**$ 2,228,457**	**$ 731,730**	**$ 2,251,340**	**$ 3,125,387**

	1920-79	1980	1981	1982	1983	1984
Illinois						
Oil in Barrels						
Volume	731	79	0	0	0	92
Market Value $	11,503	$ 2,809	0	0	0	$ 2,666
Royalties $	1,917	$ 468	0	0	0	$ 444
Coal in Tons						
Volume	24,170	0	0	0	0	0
Market Value $	92,128	0	0	0	0	0
Royalties $	3,138	0	0	0	0	0
Other Products						
Market Value $	18,672,630	$ 1,292,004	$ 1,731,804	12,158	0	$ 550,124
Royalties $	757,699	$ 58,416	$ 77,931	547	0	$ 24,966
Total Royalties All Minerals $	**762,754**	**$ 58,884**	**$ 77,931**	**547**	**0**	**$ 25,410**

	1920-79	1980	1981	1982	1983	1984
Indiana						
Oil in Barrels						
Volume	5,679	0	0	0	0	0
Market Value $	15,529	0	0	0	0	0
Royalties $	1,859	0	0	0	0	0
Total Royalties All Minerals $	**1,859**	**0**	**0**	**0**	**0**	**0**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

1985	1986	1987	1988	1989	1920-89	
						Idaho
						Coal in Tons
0	0	0	0	0	31,574	Volume
0	0	0	0	0	$ 88,984	Market Value
0	0	0	0	0	$ 7,228	Royalties
						Other Products
$ 65,377,357	$ 35,637,173	$ 44,559,403	$ 45,515,100	$ 57,657,206	$ 679,224,636	Market Value
$ 3,220,911	$ 1,751,236	$ 2,227,493	$ 3,144,387	$ 2,958,835	$ 38,440,709	Royalties
						Total Royalties
$ 3,220,911	**$ 1,751,236**	**$ 2,227,493**	**$ 3,144,387**	**$ 2,958,835**	**$ 38,447,937**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						Illinois
						Oil in Barrels
0	0	0	14,539	6,523	21,964	Volume
0	0	0	$ 218,517	$ 105,622	$ 341,117	Market Value
0	0	0	$ 27,315	$ 13,367	$ 43,511	Royalties
						Coal in Tons
0	0	0	0	0	24,170	Volume
0	0	0	0	0	$ 92,128	Market Value
0	0	0	0	0	$ 3,138	Royalties
						Other Products
$ 1,342,175	$ 761,008	0	$ 136,315	0	$ 24,498,218	Market Value
$ 62,222	$ 37,367	0	$ 6,135	0	$ 1,025,283	Royalties
						Total Royalties
$ 62,222	**$ 37,367**	**0**	**$ 33,450**	**$ 13,367**	**$ 1,071,932**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						Indiana
						Oil in Barrels
0	0	0	0	0	5,679	Volume
0	0	0	0	0	$ 15,529	Market Value
0	0	0	0	0	$ 1,859	Royalties
						Total Royalties
0	**0**	**0**	**0**	**0**	**$ 1,859**	**All Minerals**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

	1920-79	1980	1981	1982	1983	1984
Kansas						
Oil in Barrels						
Volume	14,359,666	351,749	285,680	330,565	350,500	274,083
Market Value	$ 50,546,798	$ 5,557,814	$ 10,218,778	$ 10,299,723	$ 9,989,250	$ 7,815,363
Royalties	$ 6,918,374	$ 740,411	$ 1,370,189	$ 1,400,628	$ 1,248,656	$ 1,026,721
Gas in Mcf						
Volume	343,762,868	11,450,442	6,841,684	9,719,373	8,747,100	(2,545,546)
Market Value	$ 64,276,086	$ 9,807,317	$ 5,785,384	$ 12,495,566	$ 15,482,367	$ (3,928,956)
Royalties	$ 7,911,008	$ 1,230,041	$ 729,335	$ 1,584,177	$ 1,961,616	$ 851,847
Other Products						
Market Value	$ 5,017	0	0	0	0	$ 214,998
Royalties	$ 302	0	0	0	0	$ 26,875
Total Royalties All Minerals	**$ 14,829,684**	**$ 1,970,452**	**$ 2,099,524**	**$ 2,984,805**	**$ 3,210,272**	**$ 1,905,443**

	1920-79	1980	1981	1982	1983	1984
Kentucky						
Oil in Barrels						
Volume	2,976,570	6,497	4,892	3,700	4,650	5,529
Market Value	$ 9,539,416	$ 242,734	$ 177,453	$ 114,700	$ 133,920	$ 159,319
Royalties	$ 1,427,187	$ 36,406	$ 26,618	$ 17,205	$ 16,740	$ 23,247
Gas in Mcf						
Volume	754,394	279,887	225,251	205,000	182,000	378,124
Market Value	$ 675,814	$ 335,864	$ 270,991	$ 276,750	$ 476,840	$ 1,129,051
Royalties	$ 77,387	$ 36,892	$ 30,398	$ 34,590	$ 59,605	$ 140,872
Coal in Tons						
Volume	2,991,881	2,992	0	0	0	0
Market Value	$ 25,917,641	$ 89,727	0	0	0	0
Royalties	$ 1,003,474	$ 3,589	0	0	0	0
Total Royalties All Minerals	**$ 2,508,048**	**$ 76,887**	**$ 57,016**	**$ 51,795**	**$ 76,345**	**$ 164,119**

	1920-79	1980	1981	1982	1983	1984
Louisiana						
Oil in Barrels						
Volume	145,655,048	2,054,703	1,464,854	1,734,145	2,004,500	1,497,969
Market Value	$ 510,067,485	$ 30,427,595	$ 51,622,050	$ 45,220,999	$ 59,132,750	$ 44,239,467
Royalties	$ 60,658,840	$ 3,583,097	$ 5,686,906	$ 5,913,809	$ 7,391,594	$ 5,572,088
Gas in Mcf						
Volume	1,397,105,638	17,955,861	15,512,606	17,177,498	15,459,300	15,064,559
Market Value	$ 257,962,007	$ 14,666,618	$ 13,040,634	$ 19,944,754	$ 23,807,322	$ 19,262,162
Royalties	$ 37,390,233	$ 1,932,802	$ 1,761,926	$ 2,599,118	$ 3,102,094	$ 2,478,550
Other Products						
Market Value	$ 40,622,159	$ 5,788,422	$ 7,024,299	$ 7,194,180	$ 6,330,000	$ 6,210,495
Royalties	$ 6,609,649	$ 912,874	$ 1,072,336	$ 1,026,086	$ 902,800	$ 867,694
Total Royalties All Minerals	**$ 104,658,722**	**$ 6,428,773**	**$ 8,521,168**	**$ 9,539,013**	**$ 11,396,488**	**$ 8,918,332**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

1985	1986	1987	1988	1989	1920-89	
						Kansas
						Oil in Barrels
247,873	230,237	256,019	334,921	280,543	17,301,836	Volume
$ 6,285,339	$ 3,551,778	$ 4,353,871	$ 5,139,298	$ 5,011,081	$ 118,769,093	Market Value
$ 820,524	$ 455,244	$ 562,244	$ 675,791	$ 630,839	$ 15,849,621	Royalties
						Gas in Mcf
8,005,106	7,901,163	7,710,397	10,958,785	11,211,249	423,762,621	Volume
$ 10,094,042	$ 8,950,958	$ 9,906,102	$ 15,313,237	$ 16,820,878	$ 165,002,981	Market Value
$ 1,098,029	$ 1,005,418	$ 1,209,138	$ 1,910,998	$ 2,032,794	$ 21,524,401	Royalties
						Other Products
$ 257,123	$ 171,039	$ 85,971	$ 269,096	$ 571,053	$ 1,574,297	Market Value
$ 32,141	$ 21,380	$ 10,747	$ 32,078	$ 59,566	$ 183,089	Royalties
						Total Royalties
$ 1,950,694	**$ 1,482,042**	**$ 1,782,129**	**$ 2,618,867**	**$ 2,723,199**	**$ 37,557,111**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						Kentucky
						Oil in Barrels
4,317	4,076	4,400	5,721	3,944	3,024,296	Volume
$ 116,369	$ 62,899	$ 75,910	$ 86,173	$ 68,842	$ 10,777,735	Market Value
$ 17,455	$ 9,435	$ 11,304	$ 12,693	$ 10,177	$ 1,608,467	Royalties
						Gas in Mcf
372,860	329,613	290,100	239,215	257,069	3,513,513	Volume
$ 1,113,536	$ 1,014,076	$ 878,675	$ 679,766	$ 656,800	$ 7,508,163	Market Value
$ 139,061	$ 139,669	$ 109,834	$ 84,971	$ 81,596	$ 934,875	Royalties
						Coal in Tons
0	0	0	238,423	142,121	3,375,417	Volume
0	0	0	$ 6,023,729	$ 3,262,187	$ 35,293,284	Market Value
0	0	0	$ 484,153	$ 268,962	$ 1,760,178	Royalties
						Total Royalties
$ 156,516	**$ 149,104**	**$ 121,138**	**$ 581,817**	**$ 360,735**	**$ 4,303,520**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						Louisiana
						Oil in Barrels
1,304,169	1,349,207	1,430,544	1,051,275	861,517	160,407,931	Volume
$ 36,128,522	$ 22,282,197	$ 25,395,129	$ 16,531,624	$ 15,452,309	$ 856,500,127	Market Value
$ 3,804,766	$ 2,345,337	$ 2,786,851	$ 1,847,756	$ 1,770,393	$ 101,361,437	Royalties
						Gas in Mcf
11,883,842	11,491,304	11,871,768	12,651,360	14,207,373	1,540,381,109	Volume
$ 14,819,881	$ 15,784,151	$ 18,288,763	$ 20,234,725	$ 25,261,143	$ 443,072,160	Market Value
$ 1,962,708	$ 2,161,330	$ 2,657,402	$ 2,814,206	$ 3,488,318	$ 62,348,687	Royalties
						Other Products
$ 4,455,942	$ 2,830,003	$ 2,568,431	$ 3,191,890	$ 2,884,723	$ 89,100,544	Market Value
$ 659,450	$ 422,089	$ 382,218	$ 390,145	$ 278,419	$ 13,523,760	Royalties
						Total Royalties
$ 6,426,924	**$ 4,928,756**	**$ 5,826,471**	**$ 5,052,107**	**$ 5,537,130**	**$ 177,233,884**	**All Minerals**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

	1920-79	1980	1981	1982	1983	1984
Maine						
Other Products						
Market Value $	9,711	0	0	0	0	0
Royalties $	818	0	0	0	0	0
Total Royalties All Minerals $	**818**	**0**	**0**	**0**	**0**	**0**

	1920-79	1980	1981	1982	1983	1984
Maryland						
Gas in Mcf						
Volume	3,800,246	4,482	2,557	2,400	2,160	991
Market Value $	1,033,644 $	9,905 $	4,952 $	4,992 $	5,530 $	2,168
Royalties $	129,946 $	1,238 $	619 $	624 $	691 $	271
Total Royalties All Minerals $	**129,946 $**	**1,238 $**	**619 $**	**624 $**	**691 $**	**271**

	1920-79	1980	1981	1982	1983	1984
Michigan						
Oil in Barrels						
Volume	1,038,295	99,714	74,435	64,000	53,500	160,758
Market Value $	6,698,479 $	2,443,015 $	2,646,940 $	1,920,000 $	1,551,500 $	3,951,348
Royalties $	888,184 $	301,700 $	352,759 $	240,000 $	193,938 $	749,819
Gas in Mcf						
Volume	4,038,899	594,958	575,628	560,000	498,552	903,731
Market Value $	3,313,778 $	946,864 $	1,681,725 $	1,708,000 $	1,691,472 $	3,319,056
Royalties $	470,717 $	113,029 $	210,483 $	213,500 $	211,428 $	345,223
Other Products						
Market Value $	4,659	0	0	0	0 $	193,845
Royalties $	470	0	0	0	0 $	27,400
Total Royalties All Minerals $	**1,359,371 $**	**414,729 $**	**563,242 $**	**453,500 $**	**405,366 $**	**1,122,442**

	1920-79	1980	1981	1982	1983	1984
Minnesota						
Other Products						
Market Value $	442,883 $	203,218 $	3,259,472 $	32,522 $	1,292,891 $	1,405,665
Royalties $	16,143 $	8,129 $	130,379 $	3,533 $	39,185 $	58,018
Total Royalties All Minerals $	**16,143 $**	**8,129 $**	**130,379 $**	**3,533 $**	**39,185 $**	**58,018**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

1985	1986	1987	1988	1989	1920-89	
						Maine
						Other Products
0	0	0	0	0 $	9,711	Market Value
0	0	0	0	0 $	818	Royalties
						Total Royalties
0	**0**	**0**	**0**	**0 $**	**818**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						Maryland
						Gas in Mcf
10,055	255	10,439	6,391	8,037	3,848,013	Volume
$ 5,991	$ 179	$ 6,263	$ 4,026	$ 4,903	$ 1,082,553	Market Value
$ 749	$ 22	$ 783	$ 503	$ 613	$ 136,059	Royalties
						Total Royalties
$ 749	**$ 22**	**$ 783**	**$ 503**	**$ 613**	**$ 136,059**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						Michigan
						Oil in Barrels
135,897	107,167	106,356	99,248	129,963	2,069,333	Volume
$ 3,528,948	$ 1,732,404	$ 1,864,759	$ 1,500,129	$ 2,234,068	$ 30,071,590	Market Value
$ 421,155	$ 215,187	$ 235,682	$ 192,311	$ 284,442	$ 4,075,177	Royalties
						Gas in Mcf
617,155	1,353,655	1,623,534	3,009,380	3,461,282	17,236,774	Volume
$ 2,293,730	$ 4,324,905	$ 3,467,968	$ 7,266,218	$ 8,342,392	$ 38,356,108	Market Value
$ 286,528	$ 256,407	$ 433,496	$ 918,799	$ 1,037,312	$ 4,496,922	Royalties
						Other Products
$ 8,976	$ 0	$ 91,189	$ 260,012	$ 425,468	$ 984,149	Market Value
$ 2,400	$ 0	$ 11,399	$ 28,928	$ 44,809	$ 115,406	Royalties
						Total Royalties
$ 710,083	**$ 471,594**	**$ 680,577**	**$ 1,140,038**	**$ 1,366,563**	**$ 8,687,505**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						Minnesota
						Other Products
$ 4,651,525	$ 1,551,047	$ 9,976,173	$ 354,396	$ 3,914,456	$ 27,084,248	Market Value
$ 190,425	$ 62,249	$ 399,047	$ 11,579	$ 134,539	$ 1,053,226	Royalties
						Total Royalties
$ 190,425	**$ 62,249**	**$ 399,047**	**$ 11,579**	**$ 134,539**	**$ 1,053,226**	**All Minerals**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

	1920-79	1980	1981	1982	1983	1984
Mississippi						
Oil in Barrels						
Volume	47,806,119	798,396	671,983	568,150	465,200	594,180
Market Value	$ 185,906,349	$ 17,952,777	$ 22,135,573	$ 17,598,750	$ 13,607,100	$ 24,083,902
Royalties	$ 22,916,734	$ 2,239,068	$ 2,698,902	$ 2,200,325	$ 1,700,888	$ 3,005,419
Gas in Mcf						
Volume	72,184,441	208,768	898,231	869,200	782,280	5,942,604
Market Value	$ 15,463,660	$ 358,035	$ 2,204,360	$ 2,247,430	$ 2,393,777	$ 24,051,737
Royalties	$ 1,649,581	$ 49,088	$ 1,522,092	$ 165,565	$ 299,200	$ 2,806,365
Other Products						
Market Value	$ 188,538	$ 0	$ 69,691	$ 81,000	$ 71,300	$ 794
Royalties	$ 11,859	$ 0	$ 217	$ 250	$ 210	$ 646
Total Royalties All Minerals	**$ 24,578,174**	**$ 2,288,156**	**$ 4,221,211**	**$ 2,366,140**	**$ 2,000,298**	**$ 5,812,430**

	1920-79	1980	1981	1982	1983	1984
Missouri						
Other Products						
Market Value	$ 1,279,200,857	$ 251,760,373	$ 144,412,821	$ 92,808,570	$ 73,837,199	$ 100,661,451
Royalties	$ 56,985,629	$ 12,588,211	$ 7,169,887	$ 4,652,521	$ 3,684,368	$ 3,750,857
Total Royalties All Minerals	**$ 56,985,629**	**$ 12,588,211**	**$ 7,169,887**	**$ 4,652,521**	**$ 3,684,368**	**$ 3,750,857**

	1920-79	1980	1981	1982	1983	1984
Montana						
Oil in Barrels						
Volume	247,890,965	5,881,966	5,779,223	5,036,442	5,028,154	5,202,388
Market Value	$ 844,021,418	$ 96,214,460	$ 193,605,300	$ 153,889,803	$ 140,516,907	$ 148,952,661
Royalties	$ 108,221,967	$ 12,070,997	$ 22,516,111	$ 18,014,642	$ 16,830,800	$ 17,339,637
Gas in Mcf						
Volume	253,763,894	13,671,805	12,074,867	12,343,537	9,182,406	18,266,587
Market Value	$ 53,835,391	$ 17,895,457	$ 19,601,569	$ 23,618,454	$ 24,846,195	$ 41,203,622
Royalties	$ 5,930,328	$ 2,203,978	$ 2,372,811	$ 2,821,662	$ 2,967,733	$ 3,238,169
Coal in Tons						
Volume	78,564,928	10,392,536	26,726,838	10,651,879	14,334,618	18,696,290
Market Value	$ 355,065,030	$ 91,086,899	$ 324,259,233	$ 110,665,774	$ 225,181,755	$ 289,792,495
Royalties	$ 11,040,228	$ 2,676,851	$ 6,245,099	$ 9,516,623	$ 7,946,687	$ 9,708,668
Other Products						
Market Value	$ 75,190,761	$ 4,356,148	$ 3,477,891	$ 3,946,699	$ 5,156,294	$ 3,187,109
Royalties	$ 2,805,229	$ 124,556	$ 142,535	$ 153,442	$ 213,858	$ 422,104
Total Royalties All Minerals	**$ 127,997,752**	**$ 17,076,382**	**$ 31,276,556**	**$ 30,506,369**	**$ 27,959,078**	**$ 30,708,578**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

1985	1986	1987	1988	1989	1920-89	
						Mississippi
						Oil in Barrels
777,449	711,049	624,285	586,271	611,422	54,214,504	Volume
$ 20,576,378	$ 11,114,638	$ 10,947,451	$ 8,787,621	$ 10,771,938	$ 343,482,477	Market Value
$ 2,534,595	$ 1,382,318	$ 1,336,905	$ 1,089,164	$ 1,335,275	$ 42,439,593	Royalties
						Gas in Mcf
3,123,495	1,563,483	1,272,244	997,437	795,980	88,638,163	Volume
$ 9,952,787	$ 3,439,163	$ 2,246,777	$ 1,963,853	$ 1,547,185	$ 65,868,764	Market Value
$ 1,233,003	$ 410,064	$ 288,934	$ 243,580	$ 192,320	$ 8,859,792	Royalties
						Other Products
0	$ 786	0	0	0	$ 412,109	Market Value
0	$ 98	0	0	0	$ 13,280	Royalties
						Total Royalties
$ 3,767,598	**$ 1,792,480**	**$ 1,625,839**	**$ 1,332,744**	**$ 1,527,595**	**$ 51,312,665**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						Missouri
						Other Products
$ 102,507,648	$ 86,744,209	$ 143,106,308	$ 211,387,268	$ 247,070,652	$ 2,733,497,356	Market Value
$ 2,440,816	$ 2,678,417	$ 4,460,895	$ 6,852,151	$ 7,765,935	$ 113,029,687	Royalties
						Total Royalties
$ 2,440,816	**$ 2,678,417**	**$ 4,460,895**	**$ 6,852,151**	**$ 7,765,935**	**$ 113,029,687**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						Montana
						Oil in Barrels
4,910,149	4,606,038	4,209,570	3,839,065	3,441,239	295,825,199	Volume
$ 124,648,794	$ 68,412,176	$ 68,223,406	$ 53,578,775	$ 55,703,432	$ 1,947,767,132	Market Value
$ 14,502,103	$ 7,548,159	$ 7,665,880	$ 6,092,168	$ 6,362,571	$ 237,165,035	Royalties
						Gas in Mcf
11,267,984	11,099,365	14,968,968	8,390,794	10,422,978	375,453,185	Volume
$ 20,555,209	$ 25,350,887	$ 20,074,876	$ 16,482,316	$ 20,111,668	$ 283,575,644	Market Value
$ 2,521,743	$ 2,588,170	$ 2,504,588	$ 2,053,674	$ 2,459,533	$ 31,662,389	Royalties
						Coal in Tons
21,180,897	24,681,884	21,012,476	20,626,026	23,695,342	270,563,714	Volume
$ 297,466,328	$ 311,291,759	$ 332,226,077	$ 297,352,200	$ 270,581,091	$ 2,904,968,641	Market Value
$ 15,173,896	$ 22,446,731	$ 39,110,631	$ 35,591,525	$ 26,544,365	$ 186,001,304	Royalties
						Other Products
$ 3,566,374	$ 3,611,735	$ 1,765,660	$ 2,163,440	$ 3,281,515	$ 109,703,626	Market Value
$ 311,082	$ 351,316	$ 197,388	$ 147,541	$ 204,389	$ 5,073,440	Royalties
						Total Royalties
$ 32,508,824	**$ 32,934,376**	**$ 49,478,487**	**$ 43,884,908**	**$ 35,570,858**	**$ 459,902,168**	**All Minerals**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

	1920-79	1980	1981	1982	1983	1984
Nebraska						
Oil in Barrels						
Volume	830,068	102,853	119,261	108,492	106,597	139,728
Market Value	$ 6,822,731	$ 3,307,012	$ 4,250,087	$ 3,501,401	$ 3,211,820	$ 4,122,435
Royalties	$ 641,478	$ 513,924	$ 583,363	$ 445,583	$ 416,243	$ 553,226
Gas in Mcf						
Volume	8,877,911	438,667	470,739	388,552	343,920	294,807
Market Value	$ 4,026,473	$ 662,771	$ 630,762	$ 820,959	$ 481,510	$ 391,900
Royalties	$ 665,157	$ 110,462	$ 103,568	$ 136,076	$ 78,670	$ 58,141
Other Products						
Market Value	$ 2,633,873	$ 381,417	$ 490,769	$ 421,644	$ 303,960	$ 212,647
Royalties	$ 227,234	$ 17,166	$ 33,569	$ 28,779	$ 20,200	$ 26,585
Total Royalties All Minerals	**$ 1,533,869**	**$ 641,552**	**$ 720,500**	**$ 610,438**	**$ 515,113**	**$ 637,952**

	1920-79	1980	1981	1982	1983	1984
Nevada						
Oil in Barrels						
Volume	6,042,259	863,716	501,454	525,100	666,800	1,553,498
Market Value	$ 37,778,590	$ 13,726,240	$ 11,873,558	$ 11,946,025	$ 14,002,800	$ 30,602,759
Royalties	$ 4,695,317	$ 1,715,781	$ 1,484,195	$ 1,493,253	$ 1,750,350	$ 3,825,346
Coal in Tons						
Volume	141	0	0	0	0	0
Market Value	$ 207	0	0	0	0	0
Royalties	$ 133	0	0	0	0	0
Other Products						
Market Value	$ 24,886,199	$ 3,513,878	$ 2,526,463	$ 933,767	$ 1,444,181	$ 1,572,244
Royalties	$ 945,017	$ 134,811	$ 101,028	$ 53,052	$ (1,204,133)	$ 111,903
Total Royalties All Minerals	**$ 5,640,467**	**$ 1,850,592**	**$ 1,585,223**	**$ 1,546,305**	**$ 546,217**	**$ 3,937,249**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

1985	1986	1987	1988	1989	1920-89	
						Nebraska
						Oil in Barrels
158,069	146,834	122,168	102,534	97,335	2,033,939	Volume
$ 4,091,035	$ 2,178,793	$ 2,114,735	$ 1,558,588	$ 1,718,841	$ 36,877,478	Market Value
$ 488,653	$ 269,628	$ 261,912	$ 195,469	$ 218,550	$ 4,588,029	Royalties
						Gas in Mcf
346,366	7,009	0	0	0	11,167,971	Volume
$ 416,806	$ 10,760	0	0	0	$ 7,441,941	Market Value
$ 71,646	$ 1,837	0	0	0	$ 1,225,557	Royalties
						Other Products
$ 106,661	$ 2,743	$ (22,525)	0	0	$ 4,531,189	Market Value
$ 17,777	$ 457	$ (3,754)	0	0	$ 368,013	Royalties
						Total Royalties
$ 578,076	**$ 271,922**	**$ 258,158**	**$ 195,469**	**$ 218,550**	**$ 6,181,599**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						Nevada
						Oil in Barrels
3,108,782	2,787,446	3,145,419	3,167,416	3,145,254	25,507,144	Volume
$ 58,540,986	$ 26,583,769	$ 33,277,960	$ 28,308,323	$ 38,812,437	$ 305,453,447	Market Value
$ 7,317,621	$ 3,345,201	$ 4,159,745	$ 3,539,249	$ 4,851,555	$ 38,177,613	Royalties
						Coal in Tons
0	0	0	0	0	141	Volume
0	0	0	0	0	$ 207	Market Value
0	0	0	0	0	$ 133	Royalties
						Other Products
$ 2,146,345	$ 5,038,088	$ 7,010,370	$ 15,136,327	$ 25,466,153	$ 89,674,015	Market Value
$ 127,384	$ 314,085	$ 510,909	$ 1,186,001	$ 2,035,145	$ 4,315,202	Royalties
						Total Royalties
$ 7,445,005	**$ 3,659,286**	**$ 4,670,654**	**$ 4,725,250**	**$ 6,886,700**	**$ 42,492,948**	**All Minerals**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

	1920-79	1980	1981	1982	1983	1984
New Mexico						
Oil in Barrels						
Volume	986,138,813	21,664,764	21,796,606	18,368,501	17,637,300	19,611,110
Market Value	$ 3,700,162,705	$ 530,218,728	$ 695,739,128	$ 564,236,227	$ 529,119,000	$ 553,609,916
Royalties	$ 450,821,729	$ 65,322,151	$ 84,424,779	$ 68,138,838	$ 66,139,875	$ 69,449,687
Gas in Mcf						
Volume	12,935,039,734	584,421,135	648,683,299	687,846,386	510,571,286	537,602,876
Market Value	$ 3,999,583,957	$1,064,844,278	$1,341,783,321	$1,652,188,050	$1,470,445,300	$1,441,371,994
Royalties	$ 495,278,400	$ 133,031,227	$ 167,916,224	$ 207,174,936	$ 183,805,660	$ 181,441,663
Coal in Tons						
Volume	19,798,870	6,316,551	9,184,682	4,403,691	1,592,588	4,647,719
Market Value	$ 173,533,612	$ 81,406,221	$ 100,957,236	$ 86,028,883	$ 31,066,567	$ 85,533,487
Royalties	$ 4,324,887	$ 6,982,294	$ 100,219	$ 8,289,584	$ 3,064,208	$ 11,127,684
Other Products						
Market Value	$ 2,997,493,492	$ 297,094,282	$ 289,589,265	$ 338,528,191	$ 220,906,504	$ 210,691,470
Royalties	$ 124,829,610	$ 12,974,943	$ 10,926,572	$ 12,810,349	$ 6,278,080	$ 10,916,707
Total Royalties All Minerals	**$ 1,075,254,626**	**$ 218,310,615**	**$ 263,367,794**	**$ 296,413,707**	**$ 259,287,823**	**$ 272,935,741**

	1920-79	1980	1981	1982	1983	1984
North Carolina						
Other Products						
Market Value	$ 315,696	0	0	0	0	0
Royalties	$ 19,154	0	0	0	0	0
Total Royalties All Minerals	**$ 19,154**	**0**	**0**	**0**	**0**	**0**

	1920-79	1980	1981	1982	1983	1984
North Dakota						
Oil in Barrels						
Volume	52,823,628	10,102,309	14,895,180	13,819,299	14,528,976	13,439,445
Market Value	$ 271,046,726	$ 316,758,997	$ 537,658,049	$ 445,654,630	$ 447,271,507	$ 388,422,762
Royalties	$ 32,669,123	$ 38,291,737	$ 64,514,108	$ 54,158,827	$ 53,742,847	$ 47,734,009
Gas in Mcf						
Volume	41,531,604	3,805,506	6,970,530	9,919,506	9,732,577	15,393,613
Market Value	$ 5,081,037	$ 7,315,068	$ 18,459,743	$ 28,595,366	$ 35,774,929	$ 39,245,983
Royalties	$ 556,387	$ 890,694	$ 2,259,085	$ 3,496,703	$ 4,383,313	$ 4,953,350
Coal in Tons						
Volume	31,145,737	606,046	873,681	1,454,570	1,732,054	1,882,878
Market Value	$ 75,847,527	$ (7,582,586)	$ 6,480,472	$ (1,330,321)	$ 19,838,759	$ 28,713,890
Royalties	$ 3,843,637	$ (352,095)	$ 278,333	$ 1,085,399	$ 1,686,054	$ 1,894,923
Other Products						
Market Value	$ 5,351,997	$ 4,027,277	$ 10,564,574	$ 13,594,429	$ 7,117,190	$ 11,075,341
Royalties	$ 481,593	$ 7,315	$ 411,554	$ 565,655	$ 294,070	$ 1,370,404
Total Royalties All Minerals	**$ 37,550,740**	**$ 38,837,651**	**$ 67,463,080**	**$ 59,306,584**	**$ 60,106,284**	**$ 55,952,686**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

1985	1986	1987	1988	1989	1920-89	
						New Mexico
						Oil in Barrels
22,590,428	23,104,610	21,840,599	21,093,314	21,161,868	1,195,007,913	Volume
$ 604,490,924	$ 368,929,611	$ 372,487,190	$ 318,057,953	$ 369,244,206	$ 8,606,295,588	Market Value
$ 72,181,527	$ 46,209,491	$ 45,872,467	$ 39,811,665	$ 45,849,368	$ 1,054,221,577	Royalties
						Gas in Mcf
496,692,165	374,440,453	422,912,834	408,854,742	414,736,695	18,021,801,605	Volume
$1,344,175,671	$ 782,954,115	$ 695,041,094	$ 716,459,283	$ 663,784,280	$15,172,631,343	Market Value
$ 167,397,414	$ 97,696,290	$ 85,839,782	$ 88,855,918	$ 79,514,738	$ 1,887,952,252	Royalties
						Coal in Tons
7,721,749	4,253,749	3,261,040	3,372,358	6,207,133	70,760,130	Volume
$ 162,555,721	$ 101,069,049	$ 83,322,695	$ 85,091,413	$ 153,466,999	$ 1,144,031,883	Market Value
$ 23,177,307	$ 13,475,148	$ 10,595,326	$ 10,999,760	$ 18,992,458	$ 111,128,875	Royalties
						Other Products
$ 192,686,624	$ 136,243,028	$ 170,638,756	$ 240,206,551	$ 266,832,374	$ 5,360,910,537	Market Value
$ 10,274,597	$ 7,633,223	$ 8,392,685	$ 9,115,771	$ 11,156,301	$ 225,308,838	Royalties
						Total Royalties
$ 273,030,845	**$ 165,014,152**	**$ 150,700,260**	**$ 148,783,114**	**$ 155,512,865**	**$ 3,278,611,542**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						North Carolina
						Other Products
0	0	0	0	0	$ 315,696	Market Value
0	0	0	0	0	$ 19,154	Royalties
						Total Royalties
0	**0**	**0**	**0**	**0**	**$ 19,154**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						North Dakota
						Oil in Barrels
13,545,556	11,413,393	9,872,501	8,291,959	7,039,428	169,771,674	Volume
$ 343,193,855	$ 165,379,797	$ 161,967,416	$ 124,380,261	$ 118,052,302	$ 3,319,786,302	Market Value
$ 40,104,665	$ 19,566,235	$ 18,646,892	$ 14,394,980	$ 14,234,024	$ 398,057,447	Royalties
						Gas in Mcf
14,199,639	16,846,282	13,407,249	13,285,646	10,300,618	155,392,770	Volume
$ 41,416,489	$ 41,115,430	$ 21,009,836	$ 21,351,877	$ 15,080,131	$ 274,445,889	Market Value
$ 4,618,092	$ 4,692,644	$ 2,399,204	$ 2,641,470	$ 1,826,995	$ 32,717,937	Royalties
						Coal in Tons
8,373,290	4,876,793	5,326,944	5,171,486	4,954,981	66,398,460	Volume
$ 85,401,113	$ 55,315,790	$ 47,033,210	$ 42,476,935	$ 41,603,674	$ 393,798,463	Market Value
$ 7,211,535	$ 6,843,255	$ 4,721,524	$ 4,905,510	$ 3,646,461	$ 35,764,536	Royalties
						Other Products
$ 10,653,270	$ 5,008,842	$ 6,202,058	$ 5,335,249	$ 5,110,822	$ 84,041,049	Market Value
$ 1,325,880	$ 561,197	$ 773,828	$ 516,844	$ 410,473	$ 6,718,813	Royalties
						Total Royalties
$ 53,260,172	**$ 31,663,331**	**$ 26,541,448**	**$ 22,458,804**	**$ 20,117,953**	**$ 473,258,733**	**All Minerals**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

	1920-79	1980	1981	1982	1983	1984
Ohio						
Oil in Barrels						
Volume	796,680	4,679	1,648	1,700	1,920	2,377
Market Value	$ 2,286,555	$ 113,028	$ 57,187	$ 51,000	$ 53,940	$ 65,837
Royalties	$ 353,285	$ 14,121	$ 7,759	$ 6,375	$ 6,732	$ 8,229
Gas in Mcf						
Volume	4,477,291	78,557	50,601	46,600	81,500	462,692
Market Value	$ 1,374,978	$ 67,428	$ 46,320	$ 49,400	$ 89,700	$ 121,268
Royalties	$ 154,050	$ 8,426	$ 5,790	$ 6,170	$ 8,973	$ 14,316
Coal in Tons						
Volume	489,461	0	0	0	0	0
Market Value	$ 2,066,465	0	0	0	0	0
Royalties	$ 89,459	0	0	0	0	0
Total Royalties All Minerals	**$ 596,794**	**$ 22,547**	**$ 13,549**	**$ 12,545**	**$ 15,705**	**$ 22,545**

	1920-79	1980	1981	1982	1983	1984
Oklahoma						
Oil in Barrels						
Volume	14,693,210	192,874	309,900	387,404	427,200	277,626
Market Value	$ 45,128,492	$ 5,070,780	$ 6,067,497	$ 8,225,621	$ 12,602,400	$ 7,603,819
Royalties	$ 5,152,916	$ 584,136	$ 731,778	$ 995,279	$ 1,575,300	$ 892,079
Gas in Mcf						
Volume	228,938,693	15,412,213	12,496,628	15,949,465	22,611,000	14,578,945
Market Value	$ 85,779,626	$ 26,520,082	$ 25,878,899	$ 40,117,981	$ 66,165,600	$ 43,152,009
Royalties	$ 10,601,349	$ 3,100,608	$ 3,122,229	$ 5,047,144	$ 8,270,700	$ 5,394,012
Coal in Tons						
Volume	8,285,042	258,818	257,545	243,352	72,293	25,112
Market Value	$ 105,480,362	$ 11,802,057	$ 11,563,025	$ 9,453,784	$ 2,712,818	$ 897,256
Royalties	$ 2,733,128	$ 821,286	$ 1,129,504	$ 1,000,283	$ 459,638	$ 112,157
Other Products						
Market Value	$ 32,814,813	$ 230,113	$ 181,015	$ 473,042	$ 690,600	$ 1,355,699
Royalties	$ 308,544	$ 18,990	$ 23,163	$ 59,429	$ 86,300	$ 60,867
Total Royalties All Minerals	**$ 18,795,937**	**$ 4,525,020**	**$ 5,006,674**	**$ 7,102,135**	**$ 10,391,938**	**$ 6,459,115**

	1920-79	1980	1981	1982	1983	1984
Oregon						
Coal in Tons						
Volume	20,603	0	0	0	0	0
Market Value	$ 374,084	0	0	0	0	0
Royalties	$ 24,147	0	0	0	0	0
Other Products						
Market Value	$ 40	0	0	0	0	0
Royalties	$ 5	0	0	0	0	0
Total Royalties All Minerals	**$ 24,152**	**0**	**0**	**0**	**0**	**0**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

1985	1986	1987	1988	1989	1920-89	
						Ohio
						Oil in Barrels
6,297	10,721	9,918	20,680	32,248	888,868	Volume
$ 161,611	$ 235,334	$ 169,618	$ 325,706	$ 558,322	$ 4,078,138	Market Value
$ 19,146	$ 25,739	$ 21,202	$ 40,788	$ 69,238	$ 572,614	Royalties
						Gas in Mcf
203,270	200,943	76,476	1,279,791	(860,775)	6,096,946	Volume
$ 86,772	$ 67,385	$ 152,953	$ 1,577,520	$ (688,147)	$ 2,945,577	Market Value
$ 10,130	$ 7,055	$ 19,119	$ 197,190	$ (86,097)	$ 345,122	Royalties
						Coal in Tons
0	0	0	0	0	489,461	Volume
0	0	0	0	0	$ 2,066,465	Market Value
0	0	0	0	0	$ 89,459	Royalties
						Total Royalties
$ 29,276	**$ 32,794**	**$ 40,321**	**$ 237,978**	**$ (16,859)**	**$ 1,007,195**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						Oklahoma
						Oil in Barrels
315,895	217,869	214,437	237,789	289,750	17,563,954	Volume
$ 8,424,705	$ 3,611,615	$ 3,708,114	$ 3,770,221	$ 5,058,420	$ 109,271,684	Market Value
$ 1,048,228	$ 428,522	$ 463,781	$ 471,278	$ 646,934	$ 12,990,231	Royalties
						Gas in Mcf
19,618,008	17,085,700	16,301,800	17,623,853	17,621,312	398,237,617	Volume
$ 51,309,783	$ 32,150,645	$ 23,764,593	$ 25,323,059	$ 30,543,013	$ 450,705,290	Market Value
$ 6,308,460	$ 3,469,579	$ 2,952,811	$ 3,156,281	$ 3,831,329	$ 55,254,502	Royalties
						Coal in Tons
44,209	31,644	0	80,783	102,296	9,401,094	Volume
$ 1,007,511	$ 904,136	$ 0	$ 2,959,144	$ 3,606,776	$ 150,386,869	Market Value
$ 107,545	$ 20,583	$ 0	$ 69,285	$ 109,980	$ 6,563,389	Royalties
						Other Products
$ 774,575	$ 407,114	$ 199,210	$ 525,310	$ 639,245	$ 38,290,736	Market Value
$ 52,904	$ 30,475	$ 26,769	$ 39,433	$ 45,509	$ 752,383	Royalties
						Total Royalties
$ 7,517,137	**$ 3,949,159**	**$ 3,443,361**	**$ 3,736,277**	**$ 4,633,752**	**$ 75,560,505**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						Oregon
						Coal in Tons
0	0	0	0	0	20,603	Volume
0	0	0	0	0	$ 374,084	Market Value
0	0	0	0	0	$ 24,147	Royalties
						Other Products
0	0	0	0	0	$ 40	Market Value
0	0	0	0	0	$ 5	Royalties
						Total Royalties
0	**0**	**0**	**0**	**0**	**$ 24,152**	**All Minerals**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

	1920-79	1980	1981	1982	1983	1984
Pennsylvania						
Oil in Barrels						
Volume	989	0	0	0	0	0
Market Value $	4,041	0	0	0	0	0
Royalties $	491	0	0	0	0	0
Gas in Mcf						
Volume	2,794,991	0	0	0	0	0
Market Value $	952,753	0	0	0	0	0
Royalties $	95,385	0	0	0	0	0
Total Royalties All Minerals $	**95,876**	**0**	**0**	**0**	**0**	**0**

	1920-79	1980	1981	1982	1983	1984
South Carolina						
Other Products						
Market Value $	118,542	0	0	0	0	0
Royalties $	5,927	0	0	0	0	0
Total Royalties All Minerals $	**5,927**	**0**	**0**	**0**	**0**	**0**

	1920-79	1980	1981	1982	1983	1984
South Dakota						
Oil in Barrels						
Volume	716,840	128,768	227,911	364,074	373,950	350,548
Market Value $	5,412,393 $	3,394,556 $	7,045,382 $	11,271,958 $	10,729,830 $	9,794,808
Royalties $	676,552 $	424,319 $	880,673 $	1,408,995 $	1,341,275 $	1,224,334
Gas in Mcf						
Volume	152,019	436,131	(18,599)	287,980	346,400	177,367
Market Value $	304,515 $	981,656 $	16,523 $	748,723 $	1,115,835 $	579,999
Royalties $	38,064 $	122,707 $	2,065 $	93,590 $	109,478 $	72,499
Coal in Tons						
Volume	41,435	0	0	0	0	0
Market Value $	69,381	0	0	0	0	0
Royalties $	7,119	0	0	0	0	0
Other Products						
Market Value $	20,561	0	0	0	0	0
Royalties $	2,571	0	0	0	0	0
Total Royalties All Minerals $	**724,306 $**	**547,026 $**	**882,738 $**	**1,502,585 $**	**1,450,753 $**	**1,296,833**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

1985	1986	1987	1988	1989	1920-89	
						Pennsylvania
						Oil in Barrels
0	0	2,876	4,654	3,289	11,808	Volume
0	0 $	52,310 $	67,536 $	59,889 $	183,776	Market Value
0	0 $	6,539 $	8,375 $	7,487 $	22,892	Royalties
						Gas in Mcf
0	0	9,260	73,898	182,865	3,061,014	Volume
0	0 $	7,686 $	39,905 $	287,781 $	1,288,125	Market Value
0	0 $	961 $	4,988 $	35,866 $	137,200	Royalties
						Total Royalties
0	**0 $**	**7,500 $**	**13,363 $**	**43,353 $**	**160,092**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						South Carolina
						Other Products
0	0	0	0	0 $	118,542	Market Value
0	0	0	0	0 $	5,927	Royalties
						Total Royalties
0	**0**	**0**	**0**	**0 $**	**5,927**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						South Dakota
						Oil in Barrels
517,580	553,152	509,500	422,565	401,523	4,566,411	Volume
$ 13,125,718	$ 7,970,367	$ 8,253,114	$ 6,262,965	$ 6,525,504	$ 89,786,595	Market Value
$ 1,537,620	$ 887,255	$ 1,031,639	$ 772,725	$ 804,946	$ 10,990,333	Royalties
						Gas in Mcf
668,536	357,750	366,255	279,611	231,153	3,284,603	Volume
$ 2,508,934	$ 511,120	$ 455,215	$ 421,667	$ 300,500	$ 7,944,687	Market Value
$ 221,214	$ 57,179	$ 53,361	$ 51,305	$ 36,961	$ 858,423	Royalties
						Coal in Tons
0	0	0	0	0	41,435	Volume
0	0	0	0	0 $	69,381	Market Value
0	0	0	0	0 $	7,119	Royalties
						Other Products
$ 13,171	$ 21,820	0 $	$ 37,387	$ 23,115	$ 116,054	Market Value
$ 1,647	$ 2,727	0 $	$ 4,673	$ 2,889	$ 14,507	Royalties
						Total Royalties
$ 1,760,481	**$ 947,161**	**$ 1,085,000**	**$ 828,703**	**$ 844,796**	**$ 11,870,382**	**All Minerals**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

	1920-79	1980	1981	1982	1983	1984
Tennessee						
Other Products						
Market Value	$ 81,340	0	0	0	0	0
Royalties	$ 4,452	0	0	0	0	0
Total Royalties All Minerals	**$ 4,452**	**0**	**0**	**0**	**0**	**0**

	1920-79	1980	1981	1982	1983	1984
Texas						
Oil in Barrels						
Volume	6,586,304	198,682	178,910	146,384	2,793	170,528
Market Value	$ 24,965,173	$ 3,255,926	$ 6,659,086	$ 4,803,470	$ 87,252	$ 4,840,793
Royalties	$ 3,515,388	$ 373,422	$ 672,964	$ 579,969	$ 4,975	$ 627,111
Gas in Mcf						
Volume	72,950,727	1,343,723	1,022,162	1,350,349	455,470	1,417,654
Market Value	$ 17,372,348	$ 2,261,090	$ 3,415,864	$ 4,465,045	$ 2,892,848	$ 5,597,976
Royalties	$ 2,147,239	$ 158,422	$ 185,353	$ 358,905	$ 68,353	$ 699,747
Other Products						
Market Value	$ 9,819,897	$ 72,984	$ 83,695	$ 71,670	$ 24,000	$ 210,154
Royalties	$ 519,452	$ 16,719	$ 11,714	$ 9,900	$ 3,000	$ 26,481
Total Royalties All Minerals	**$ 6,182,079**	**$ 548,563**	**$ 870,031**	**$ 948,774**	**$ 76,328**	**$ 1,353,339**

	1920-79	1980	1981	1982	1983	1984
Utah						
Oil in Barrels						
Volume	197,526,461	5,357,524	5,741,831	6,442,595	5,178,825	7,060,663
Market Value	$ 679,710,917	$ 79,493,432	$ 179,029,658	$ 159,274,157	$ 134,806,991	$ 181,605,459
Royalties	$ 84,735,519	$ 10,055,471	$ 22,464,242	$ 20,024,607	$ 16,849,998	$ 22,810,553
Gas in Mcf						
Volume	589,224,963	27,250,585	29,823,600	23,559,496	20,707,105	41,273,136
Market Value	$ 129,733,276	$ 48,905,382	$ 62,295,509	$ 69,576,946	$ 64,697,810	$ 137,945,478
Royalties	$ 15,894,063	$ 6,071,332	$ 7,761,048	$ 8,677,963	$ 8,078,023	$ 17,329,898
Coal in Tons						
Volume	126,148,329	8,663,416	8,718,640	10,925,415	6,725,347	8,326,593
Market Value	$ 954,050,710	$ 198,161,726	$ 216,092,766	$ 299,636,435	$ 167,363,268	$ 204,084,794
Royalties	$ 17,332,523	$ 4,526,078	$ 5,063,613	$ 8,976,648	$ 4,989,989	$ 7,588,067
Other Products						
Market Value	$ 52,376,746	$ 10,555,456	$ 15,156,946	$ 11,865,058	$ 2,602,762	$ 21,126,798
Royalties	$ 2,487,468	$ 451,720	$ 684,933	$ 574,244	$ 199,969	$ 2,522,023
Total Royalties All Minerals	**$ 120,449,573**	**$ 21,104,601**	**$ 35,973,836**	**$ 38,253,462**	**$ 30,117,979**	**$ 50,250,541**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

1985	1986	1987	1988	1989	1920-89	
						Tennessee
						Other Products
0	0	0	0	0	$ 81,340	Market Value
0	0	0	0	0	$ 4,452	Royalties
						Total Royalties
0	**0**	**0**	**0**	**0**	**$ 4,452**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						Texas
						Oil in Barrels
327,658	336,261	378,686	283,096	220,383	8,829,685	Volume
$ 8,412,278	$ 5,353,592	$ 7,642,595	$ 4,470,570	$ 3,905,698	$ 74,396,433	Market Value
$ 1,160,764	$ 741,734	$ 803,488	$ 571,495	$ 477,246	$ 9,528,556	Royalties
						Gas in Mcf
3,184,307	2,937,725	3,970,109	1,722,372	1,275,866	91,630,464	Volume
$ 9,153,154	$ 5,032,775	$ 6,346,829	$ 2,829,021	$ 2,144,469	$ 61,511,419	Market Value
$ 917,626	$ 602,246	$ 785,083	$ 346,882	$ 259,211	$ 6,529,067	Royalties
						Other Products
$ 432,584	$ 496,002	$ 72,762	$ 105,935	$ 147,584	$ 11,537,267	Market Value
$ 49,033	$ 70,953	$ 8,215	$ 13,655	$ 13,753	$ 742,875	Royalties
						Total Royalties
$ 2,127,423	**$ 1,414,933**	**$ 1,596,786**	**$ 932,032**	**$ 750,210**	**$ 16,800,498**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						Utah
						Oil in Barrels
6,973,348	6,512,093	6,516,132	5,869,096	5,795,761	258,974,329	Volume
$ 163,415,228	$ 86,278,807	$ 105,001,154	$ 79,881,759	$ 101,328,124	$ 1,949,825,686	Market Value
$ 20,409,152	$ 10,767,847	$ 13,013,191	$ 9,898,161	$ 12,561,754	$ 243,590,495	Royalties
						Gas in Mcf
34,859,573	32,554,777	28,449,356	28,646,059	34,513,187	890,861,837	Volume
$ 105,988,954	$ 77,507,744	$ 51,518,668	$ 44,588,839	$ 53,765,290	$ 846,523,896	Market Value
$ 12,464,130	$ 9,983,151	$ 6,362,239	$ 5,647,502	$ 6,730,823	$ 105,000,172	Royalties
						Coal in Tons
11,185,062	10,631,069	13,707,055	14,294,720	16,528,554	235,854,200	Volume
$ 287,549,077	$ 302,463,575	$ 379,960,984	$ 395,922,539	$ 404,340,212	$ 3,809,626,086	Market Value
$ 15,265,329	$ 16,321,635	$ 22,262,416	$ 16,628,521	$ 28,119,418	$ 147,074,237	Royalties
						Other Products
$ 12,062,855	$ 10,821,749	$ 9,555,372	$ 22,331,466	$ 13,070,515	$ 181,525,723	Market Value
$ 1,365,958	$ 1,045,847	$ 944,250	$ 2,310,862	$ 1,084,602	$ 13,671,876	Royalties
						Total Royalties
$ 49,504,569	**$ 38,118,480**	**$ 42,582,096**	**$ 34,485,046**	**$ 48,496,597**	**$ 509,336,780**	**All Minerals**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

	1920-79	1980	1981	1982	1983	1984
Virginia						
Coal in Tons						
Volume	798	0	0	0	0	33,786
Market Value	$ 4,589	0	0	0	0	$ 1,248,476
Royalties	$ 119	0	0	0	0	$ 99,525
Other Products						
Market Value	$ 6,418,607	$ 14,515	$ 54,553	$ 778,614	$ 364,515	0
Royalties	$ 226,868	$ 726	$ 1,503	$ 19,155	$ 9,113	0
Total Royalties All Minerals	**$ 226,987**	**$ 726**	**$ 1,503**	**$ 19,155**	**$ 9,113**	**$ 99,525**

	1920-79	1980	1981	1982	1983	1984
Washington						
Coal in Tons						
Volume	1,766,231	0	17,657	86,711	191,952	836,481
Market Value	$ 6,800,914	0	$ 322,900	$ 1,257,298	$ 3,839,041	$ 17,204,346
Royalties	$ 300,156	0	$ 3,531	$ 17,342	$ 38,390	$ 167,295
Total Royalties All Minerals	**$ 300,156**	**0**	**$ 3,531**	**$ 17,342**	**$ 38,390**	**$ 167,295**

	1920-79	1980	1981	1982	1983	1984
West Virginia						
Oil in Barrels						
Volume	0	0	0	0	0	0
Market Value	0	0	0	0	0	0
Royalties	0	0	0	0	0	0
Gas in Mcf						
Volume	33,937,022	2,533	555,729	575,000	520,000	0
Market Value	$ 9,122,716	$ 2,085	$ 1,209,700	$ 1,334,000	$ 1,232,400	0
Royalties	$ 1,523,515	$ 264	$ 151,211	$ 166,750	$ 154,000	0
Total Royalties All Minerals	**$ 1,523,515**	**$ 264**	**$ 151,211**	**$ 166,750**	**$ 154,000**	**0**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

1985	1986	1987	1988	1989	1920-89	
						Virginia
						Coal in Tons
14,112	0	0	0	0	48,696	Volume
$ 491,891	0	0	0	0 $	1,744,956	Market Value
$ 39,278 $	(23,089)	0	0	0 $	115,833	Royalties
						Other Products
$ 54,592	0 $	346,134 $	213,230 $	53,160 $	8,297,920	Market Value
$ 1,458	0 $	12,743 $	10,662 $	2,658 $	284,886	Royalties
						Total Royalties
$ 40,736 $	**(23,089)$**	**12,743 $**	**10,662 $**	**2,658 $**	**400,719**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						Washington
						Coal in Tons
300,850	558,856	528,025	507,916	662,264	5,456,943	Volume
$ 6,007,974 $	14,340,245 $	14,853,343 $	13,134,627 $	16,536,707 $	94,297,395	Market Value
$ 64,405 $	111,771 $	105,605 $	111,788 $	249,132 $	1,169,415	Royalties
						Total Royalties
$ 64,405 $	**111,771 $**	**105,605 $**	**111,788 $**	**249,132 $**	**1,169,415**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						West Virginia
						Oil in Barrels
0	0	0	0	231	231	Volume
0	0	0	0 $	3,691 $	3,691	Market Value
0	0	0	0 $	461 $	461	Royalties
						Gas in Mcf
796,030	1,349,894	2,114,347	1,984,178	1,493,520	43,328,253	Volume
$ 1,884,550 $	2,555,946 $	2,755,023 $	2,550,636 $	2,265,896 $	24,912,952	Market Value
$ 119,205 $	137,271 $	341,749 $	317,435 $	281,267 $	3,192,667	Royalties
						Total Royalties
$ 119,205 $	**137,271 $**	**341,749 $**	**317,435 $**	**281,728 $**	**3,193,128**	**All Minerals**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

	1920-79	1980	1981	1982	1983	1984
Wyoming						
Oil in Barrels						
Volume	2,641,799,177	70,575,096	70,199,746	67,742,499	70,696,290	70,813,337
Market Value	$ 9,063,283,232	$1,541,407,807	$2,259,737,039	$1,978,462,922	$1,945,171,228	$1,945,150,336
Royalties	$ 1,166,043,688	$ 191,660,745	$ 276,608,481	$ 240,821,908	$ 243,146,403	$ 244,129,907
Gas in Mcf						
Volume	4,182,262,524	203,470,447	198,187,169	221,972,002	223,943,362	312,088,639
Market Value	$ 1,226,263,333	$ 376,737,461	$ 492,311,376	$ 670,938,161	$ 810,987,882	$ 900,433,243
Royalties	$ 145,145,743	$ 46,421,603	$ 60,877,028	$ 82,863,457	$ 100,510,848	$ 120,544,028
Coal in Tons						
Volume	214,487,029	33,433,532	59,576,163	63,612,335	63,536,141	69,610,380
Market Value	$ 1,225,117,005	$ 297,092,692	$ 580,670,187	$ 788,411,390	$ 738,663,749	$ 509,436,577
Royalties	$ 38,158,304	$ 8,700,686	$ 17,289,702	$ 21,331,355	$ 21,024,109	$ 23,449,891
Other Products						
Market Value	$ 1,259,843,977	$ 163,477,094	$ 162,631,022	$ 226,432,588	$ 266,008,167	$ 191,331,536
Royalties	$ 57,192,742	$ 7,659,230	$ 8,853,391	$ 6,381,288	$ 19,809,762	$ 13,018,753
Total Royalties						
All Minerals	**$ 1,406,540,477**	**$ 254,442,264**	**$ 363,628,602**	**$ 351,398,008**	**$ 384,491,122**	**$ 401,142,579**

	1920-79	1980	1981	1982	1983	1984
Onshore Federal Totals						
Oil in Barrels						
Volume	6,241,172,228	149,699,287	155,576,698	149,612,769	151,456,755	152,339,422
Market Value	$20,865,847,489	$3,275,608,547	$4,891,868,825	$4,273,035,966	$4,118,421,266	$4,086,190,765
Royalties	$ 2,676,189,244	$ 413,403,243	$ 604,782,996	$ 524,530,180	$ 523,898,702	$ 519,046,615
Gas in Mcf						
Volume	23,543,067,163	1,030,801,880	1,083,063,410	1,161,244,656	971,188,219	1,112,769,625
Market Value	$ 6,633,932,502	$1,721,751,337	$2,186,873,097	$2,781,751,999	$2,777,280,960	$2,907,402,136
Royalties	$ 830,079,074	$ 215,282,024	$ 274,731,205	$ 349,439,615	$ 346,762,100	$ 371,155,164
Coal in Tons						
Volume	568,290,510	69,092,512	116,499,589	101,092,851	98,686,155	115,817,738
Market Value	$ 3,668,945,363	$ 854,899,092	$1,470,169,930	$1,520,424,951	$1,432,177,445	$1,404,670,760
Royalties	$ 95,378,508	$ 32,255,361	$ 43,009,278	$ 61,898,704	$ 52,330,292	$ 69,359,702
Other Products						
Market Value	$ 7,415,133,295	$ 909,113,625	$ 874,206,665	$ 888,408,452	$ 715,175,903	$ 847,824,435
Royalties	$ 330,185,164	$ 44,247,789	$ 42,162,901	$ 36,613,331	$ 39,593,904	$ 57,133,851
Total Royalties						
All Minerals	**$ 3,931,831,990**	**$ 705,188,417**	**$ 964,686,380**	**$ 972,481,830**	**$ 962,584,998**	**$1,016,695,332**

Table 10.--Summary of volume, market value, and royalties by State and commodity from Federal onshore mineral leases, 1920-89 (cont.)

1985	1986	1987	1988	1989	1920-89	
						Wyoming
						Oil in Barrels
80,779,449	75,310,537	71,326,893	66,120,236	63,815,807	3,349,179,067	Volume
$1,953,139,676	$1,069,870,090	$1,162,680,852	$ 909,032,299	$1,032,350,240	$24,860,285,721	Market Value
$ 231,917,178	$ 124,021,213	$ 136,076,684	$ 108,357,983	$ 122,177,177	$ 3,084,961,367	Royalties
						Gas in Mcf
257,094,699	235,887,124	267,618,588	312,672,292	308,655,331	6,723,852,177	Volume
$ 779,883,799	$ 550,364,657	$ 476,533,041	$ 447,073,013	$ 472,037,703	$ 7,203,563,669	Market Value
$ 95,900,785	$ 71,874,321	$ 59,067,090	$ 56,927,484	$ 60,735,466	$ 900,867,853	Royalties
						Coal in Tons
100,621,788	111,407,678	120,404,308	145,925,209	146,264,126	1,128,878,689	Volume
$1,243,721,251	$1,505,693,411	$1,638,362,980	$1,403,440,463	$1,586,288,562	$11,516,898,267	Market Value
$ 27,705,941	$ 28,486,778	$ 60,894,526	$ 91,858,561	$ 100,112,259	$ 439,012,112	Royalties
						Other Products
$ 212,532,821	$ 210,588,289	$ 143,112,419	$ 206,213,443	$ 257,534,441	$ 3,299,705,797	Market Value
$ 16,018,171	$ 13,029,094	$ 8,781,833	$ 12,098,334	$ 13,766,649	$ 176,609,247	Royalties
						Total Royalties
$ 371,542,075	**$ 237,411,406**	**$ 264,820,133**	**$ 269,242,362**	**$ 296,791,551**	**$ 4,601,450,579**	**All Minerals**

1985	1986	1987	1988	1989	1920-89	
						Onshore Federal Totals
						Oil in Barrels
169,968,698	157,297,487	149,977,454	138,989,604	132,705,344	7,748,795,746	Volume
$4,117,255,913	$2,227,484,741	$2,389,418,077	$1,887,117,906	$2,136,264,916	$54,268,514,411	Market Value
$ 492,367,908	$ 268,689,563	$ 289,069,747	$ 230,896,902	$ 263,056,653	$ 6,805,931,753	Royalties
						Gas in Mcf
992,989,861	821,841,109	887,679,926	901,859,470	896,740,980	33,403,246,299	Volume
$2,661,567,110	$1,764,993,100	$1,475,653,725	$1,445,305,049	$1,422,757,388	$27,779,268,403	Market Value
$ 328,657,320	$ 224,601,025	$ 183,941,568	$ 182,044,265	$ 176,414,932	$ 3,483,108,292	Royalties
						Coal in Tons
159,227,236	166,738,139	171,162,306	199,209,780	209,287,543	1,975,104,359	Volume
$2,330,911,821	$2,485,867,868	$2,669,680,063	$2,429,997,791	$2,700,659,808	$22,968,404,892	Market Value
$ 103,473,037	$ 108,420,624	$ 152,470,369	$ 172,795,745	$ 194,541,835	$ 1,085,933,455	Royalties
						Other Products
$ 938,429,282	$ 844,786,663	$ 840,880,757	$1,087,472,411	$1,274,931,720	$16,636,363,208	Market Value
$ 68,455,626	$ 62,759,211	$ 56,929,325	$ 63,798,020	$ 69,257,958	$ 871,137,080	Royalties
						Total Royalties
$ 992,953,891	**$ 664,470,423**	**$ 682,411,009**	**$ 649,534,932**	**$ 703,271,378**	**$12,246,110,580**	**All Minerals**

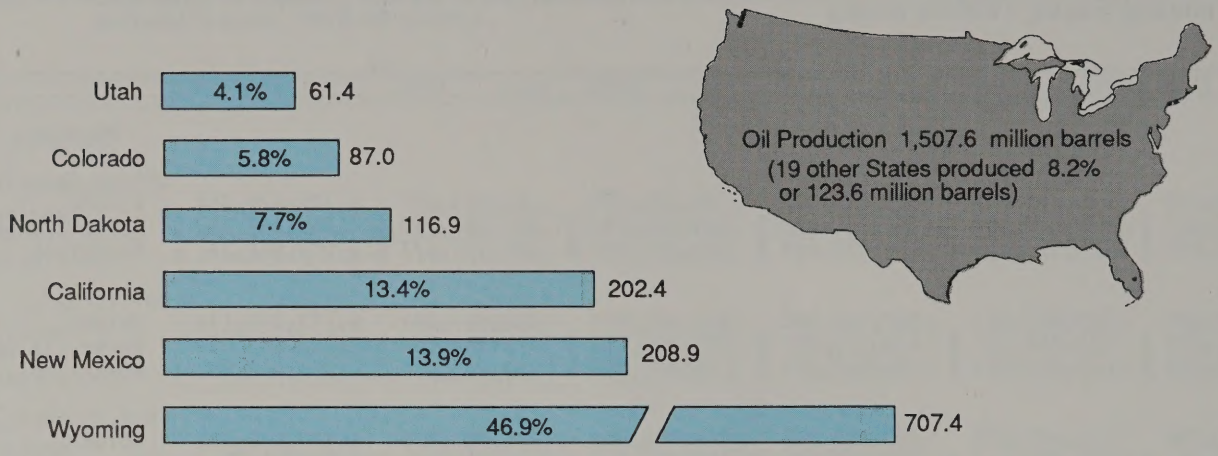


Figure 16. --- Oil production by State, in millions of barrels, from Federal onshore mineral leases, Calendar Years 1980-89

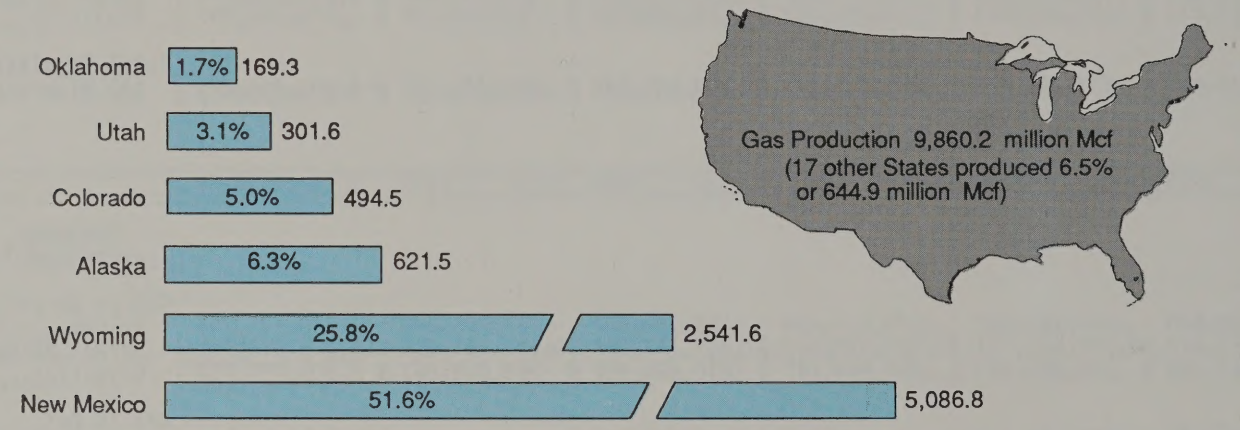


Figure 17. --- Gas production by State, in millions of Mcf, from Federal onshore mineral leases, Calendar Years 1980-89

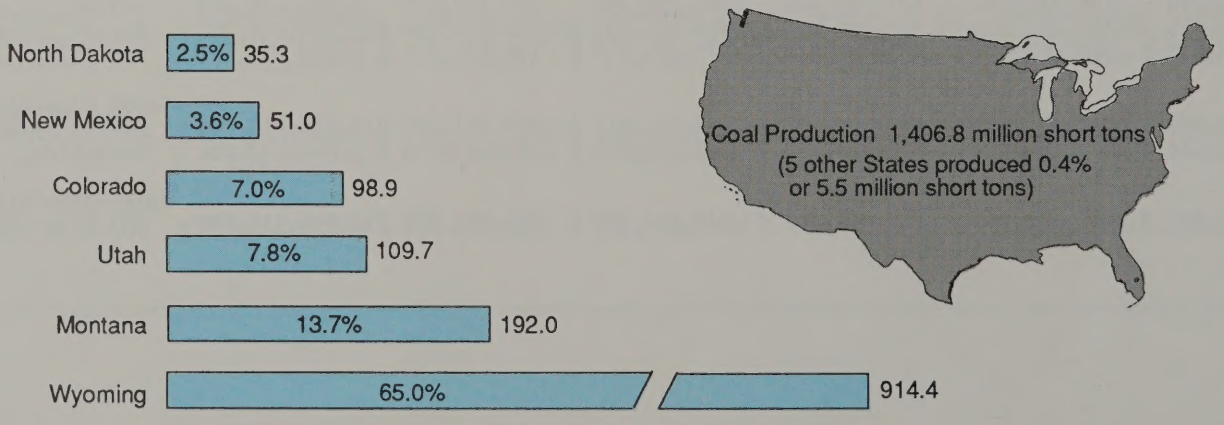


Figure 18. --- Coal production by State, in millions of short tons, from Federal onshore mineral leases, Calendar Years 1980-89

Table 11.--Summary of minimum royalties by State from Federal onshore mineral leases, 1985-89

	1985	1986	1987	1988	1989	1985-89
Alabama	$ 16,042	$ 16,042	$ 16,360	$ 16,041	$ 24,300	$ 88,785
Alaska	1,683	1,047	1,947	295	295	5,267
Arizona	1,443	640	---	---	---	2,083
Arkansas	41,639	36,958	31,160	37,827	40,245	187,829
California	5,505	40,757	27,068	26,392	58,939	158,661
Colorado	395,922	2,033,335	1,661,646	510,195	633,798	5,234,896
Florida	65	65	3,601	160	6,859	10,750
Georgia	---	---	---	1,090	---	1,090
Idaho	34,923	17,656	24,563	70,493	95,780	243,415
Illinois	549	1,098	549	1,164	1,844	5,204
Kansas	(17,838)	24,035	4,071	16,890	9,445	36,603
Kentucky	1,171	8,760	6,211	7,661	19,608	43,411
Louisiana	2,131	921	2,498	34,885	37,206	77,641
Maryland	4,114	3,387	1,413	3,659	1,607	14,180
Michigan	2,932	2,152	2,192	(3,776)	9,556	13,056
Minnesota	1	---	170,310	48,660	48,660	267,631
Mississippi	5,802	8,124	9,107	2,261	17,406	42,700
Missouri	5,864	7,483	6,891	5,707	6,161	32,106
Montana	143,482	200,816	413,085	177,646	213,240	1,148,269
Nebraska	220	1,680	6,356	702	632	9,590
Nevada	1,440	2,876	2,521	2,394	11,518	20,749
New Mexico	411,220	512,496	2,497,894	689,765	1,561,148	5,672,523
North Carolina	---	---	---	474	474	948
North Dakota	53,751	23,663	21,092	46,391	42,003	186,900
Ohio	133	164	324	141	972	1,734
Oklahoma	19,432	23,015	16,665	19,637	15,777	94,526
Pennsylvania	3,445	1,684	1,691	(768)	1,927	7,979
South Dakota	4,945	15,566	12,615	15,063	21,118	69,307
Texas	11,281	10,328	5,505	4,863	4,532	36,509
Utah	231,569	177,324	237,610	277,518	536,782	1,460,803
Virginia	2,168	2,168	2,168	2,168	4,298	12,970
Washington	---	---	---	4,840	---	4,840
West Virginia	43,168	46,030	40,418	40,793	56,633	227,042
Wyoming	354,186	4,701,078	9,149,789	9,218,165	11,113,552	34,536,770
Total	**$1,782,388**	**$7,921,348**	**$14,377,320**	**$11,279,396**	**$14,596,315**	**$49,956,767**

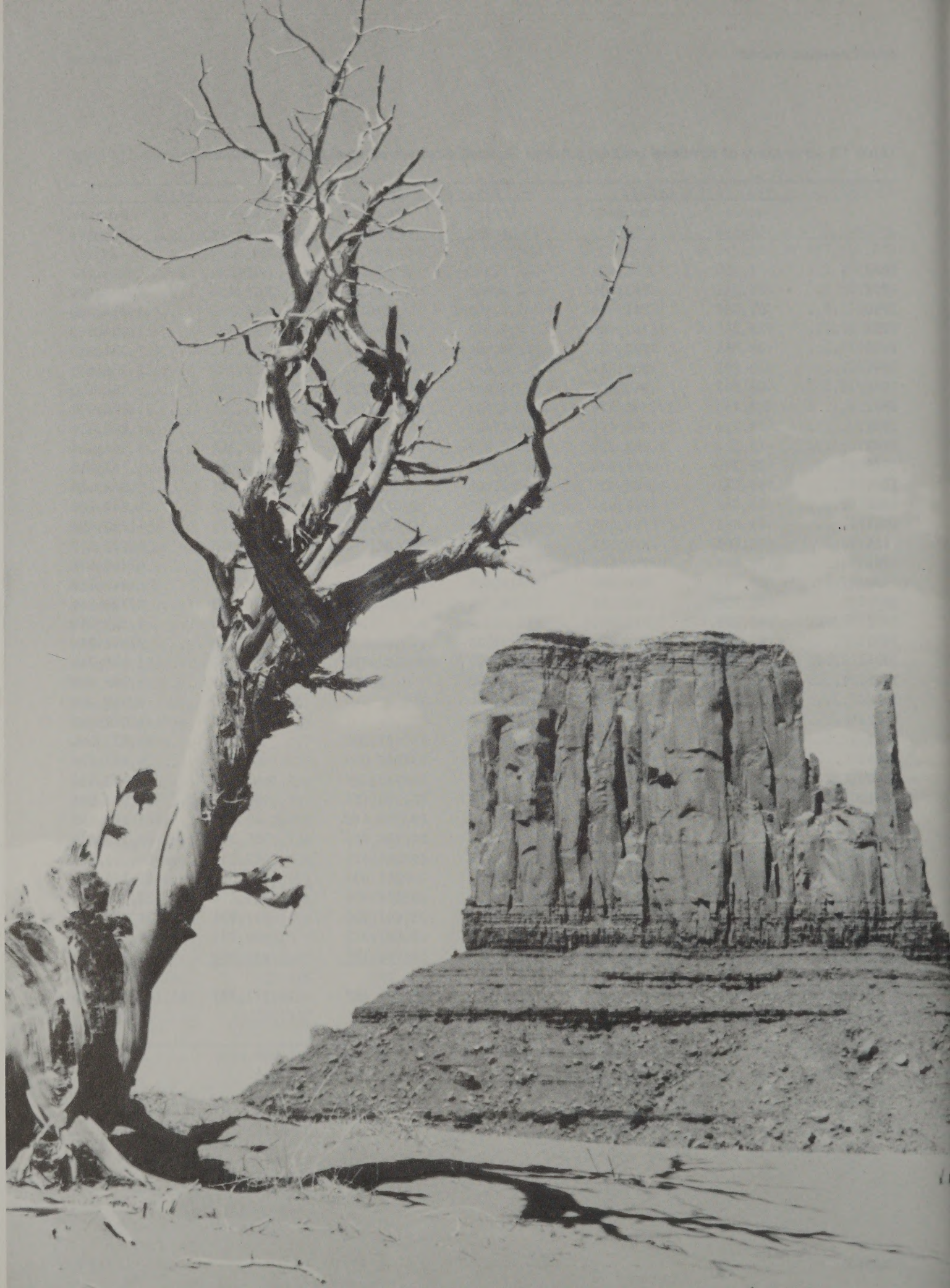
Table 12.--Summary of rents by State from Federal onshore mineral leases, 1985-89

	1985	1986	1987	1988	1989	1985-89
Alabama.....	$ 326,529	$ 145,248	$ 153,280	$ 157,611	$ 222,578	$ 1,005,246
Alaska.....	5,969,216	4,295,518	2,759,043	2,234,251	2,395,190	17,653,218
Arizona.....	1,791,405	1,222,881	961,550	823,574	383,382	5,182,792
Arkansas.....	1,108,615	548,218	401,638	685,003	978,188	3,721,662
California.....	2,997,766	1,810,995	1,601,256	1,696,112	1,663,521	9,769,650
Colorado.....	9,633,633	8,005,907	7,458,601	7,471,013	7,371,890	39,941,044
Florida.....	554,437	375,523	326,886	311,274	277,669	1,845,789
Georgia.....	99,591	559	36	36	766	100,988
Idaho.....	3,558,084	1,628,226	826,500	629,181	368,402	7,010,393
Illinois.....	4,873	3,968	3,134	1,315	2,398	15,688
Indiana.....	401	445	415	415	415	2,091
Iowa.....	---	1,440	180	---	---	1,620
Kansas.....	80,133	41,154	96,116	37,609	27,479	282,491
Kentucky.....	54,764	48,391	37,523	29,366	27,139	197,183
Louisiana.....	266,625	238,159	169,248	144,390	148,733	967,155
Maryland.....	2,613	5,623	3,406	(758)	496	11,380
Michigan.....	300,085	428,784	460,452	397,514	755,503	2,342,338
Minnesota.....	8,116	30,913	20,975	7,586	4,767	72,357
Mississippi....	733,632	651,992	578,660	568,985	577,788	3,111,057
Missouri.....	24,581	9,324	6,153	4,416	7,876	52,350
Montana.....	11,850,125	7,977,652	5,605,711	5,022,967	4,508,170	34,964,625
Nebraska.....	204,749	129,710	86,091	60,193	47,941	528,684
Nevada.....	12,615,186	7,164,123	5,194,461	8,040,706	8,539,161	41,553,637
New Mexico.....	11,442,158	7,293,927	6,529,547	6,539,113	6,113,290	37,918,035
New York.....	11,981	9,236	8,489	11,022	9,949	50,677
North Carolina.	57,228	40,719	3,350	1,387	3,495	106,179
North Dakota...	835,847	479,541	656,173	614,944	541,086	3,127,591
Ohio.....	27,819	38,765	16,670	13,209	16,395	112,858
Oklahoma.....	508,230	463,503	421,289	418,987	516,128	2,328,137
Oregon.....	4,400,269	1,967,978	1,222,232	1,025,777	584,502	9,200,758
Pennsylvania...	2,093	3,005	8,633	(3,479)	(625)	9,627
South Carolina.	1,118	1,528	6,582	4,237	3,491	16,956
South Dakota...	948,123	744,865	733,654	689,311	550,496	3,666,449
Tennesse.....	16,952	13,374	10,442	9,701	10,834	61,303
Texas.....	280,715	279,668	212,494	181,886	241,954	1,196,717
Utah.....	13,735,114	8,282,556	7,342,707	7,066,064	7,334,916	43,761,357
Virginia.....	478,873	319,024	287,466	147,277	164,227	1,396,867
Washington.....	1,312,929	840,291	733,107	730,338	342,343	3,959,008
West Virginia..	260,516	382,409	270,171	335,525	230,455	1,479,076
Wisconsin.....	16,214	60,195	72,967	110,574	45,380	305,330
Wyoming.....	19,287,942	17,468,016	16,162,103	18,592,213	19,565,072	91,075,346
Total.....	**$105,809,280**	**$73,453,353**	**$61,449,391**	**$64,810,845**	**$64,582,840**	**$370,105,709**

Table 13.--Summary of bonuses paid on sales of Federal onshore mineral leases, 1954-89

	Oil & Gas		Other Minerals		Totals	
	Acres Leased	Bonuses Paid	Acres Leased	Bonuses Paid	Acres Leased	Bonuses Paid
1954.....	7,726	$ 255,912	4,362	$ 59,260	12,088	$ 315,172
1955.....	16,145	833,305	3,319	414,804	19,464	1,248,109
1956.....	21,497	1,241,479	7,608	170,293	29,105	1,411,772
1957.....	182,233	1,197,405	14,663	297,265	196,896	1,494,670
1958.....	10,564	274,432	28,968	1,927,505	39,532	2,201,937
1959.....	32,283	882,831	20,474	305,847	52,757	1,188,678
1960.....	21,947	668,865	11,748	111,291	33,695	780,156
1961.....	27,466	12,395,374	25,863	1,030,725	53,329	13,426,099
1962.....	32,711	7,059,451	41,507	223,379	74,218	7,282,830
1963.....	53,124	2,089,236	54,244	475,288	107,368	2,564,524
1964.....	20,335	649,918	32,290	1,112,824	52,625	1,762,742
1965.....	46,572	1,805,432	30,009	1,072,714	76,581	2,878,146
1966.....	35,453	572,837	48,979	1,071,869	84,432	1,644,706
1967.....	61,665	764,296	47,606	936,656	109,271	1,700,952
1968.....	71,505	972,523	95,303	3,102,240	166,808	4,074,763
1969.....	36,969	754,543	---	---	36,969	754,543
1970.....	38,724	478,890	18,493	370,395	57,217	849,285
1971.....	52,102	1,163,136	28,706	7,627,114	80,808	8,790,250
1972.....	88,326	1,117,543	---	---	88,326	1,117,543
1973.....	89,315	2,203,370	133	33,635	89,448	2,237,005
1974.....	65,247	2,295,623	24,493	449,192,426	89,740	451,488,049
1975.....	112,401	8,202,991	362	3,618	112,763	8,206,609
1976.....	74,616	4,934,208	---	---	74,616	4,934,208
1977.....	80,529	7,820,947	---	---	80,529	7,820,947
1978.....	76,438	12,705,965	574	31,380	77,012	12,737,345
1979.....	62,447	7,597,171	6,475	816,008	68,922	8,413,179
1980.....	71,623	22,048,947	9,897	933,369	81,520	22,982,316
1981.....	126,070	103,314,389	60,034	25,358,616	186,104	128,673,005
1982.....	991,186	95,304,216	352,510	29,966,642	1,343,696	125,270,858
1983.....	131,702	31,150,106	173,694	30,958,099	305,396	62,108,205
1984.....	394,264	49,484,379	17,955	584,422	412,219	50,068,801
1985.....	517,612	47,367,665	4,444	227,094	522,056	47,594,759
1986.....	353,055	26,643,088	38,420	3,565,974	391,475	30,209,062
1987.....	211,488	33,345,494	6,333	1,407,220	217,821	34,752,714
1988.....	1,913,023	51,208,738	75,408	3,523,373	1,988,431	54,732,111
1989.....	2,831,737	62,847,022	26,963	16,746,107	2,858,700	79,593,129
Total..	**8,960,100**	**$603,651,727**	**1,311,837**	**$583,657,452**	**10,271,937**	**$1,187,309,179**

NOTE: Fiscal year data from Public Land Statistics, Bureau of Land Management.



Indian Mineral Revenues

Over $1.3 billion in royalties and rents was collected on Indian lands from 1980 through 1989 (tables 1 and 2). Indian revenues addressed in this publication exclude the Osage Nation, which manages all of its Tribal lands and collects its own revenues.

Revenues from Indian royalties and rents totaled $882.8 million during the period 1980-85, or an annual average of $147.1 million, when oil prices ranged from $28 to $38 per barrel. Average annual revenues fell 23.3 percent to $112.9 million in the period 1986-89 following the worldwide decline in oil prices in the first half of 1986 (tables 1 and 2).

Indian oil production averaged 21 million barrels per year and average annual oil royalties equaled $84.1 million from 1980-85. Oil production fell 15.1 percent to 17.8 million barrels per year from 1986-89; however, average annual oil royalties dropped 50.9 percent to $41.3 million because of the decline in oil prices (table 14 and figure 19).

Indian gas production averaged 114.4 million Mcf per year for the first 6 years of the decade, with gas royalties at $40.9 million per annum. Average annual gas production declined 7.6 percent to 105.7 Mcf in the following 4 years; however, average annual royalties fell 40.9 percent to $24.2 million, reflecting the decline in petroleum prices (table 14 and figure 19).

Coal production on Indian lands remained relatively stable during the decade, averaging 24.7 million short tons per year. Coal royalties sustained significant growth from 1985 through the end of the decade. Coal royalties averaged $8.4 million per year in 1980-84. Average annual royalties jumped 322.8 percent to $35.5 million per annum during the next 5 years (table 14 and figure 19). The increase was principally associated with the renegotiation of a number of coal leases from a cents-per-ton basis to an ad valorem basis during the period. Other contributing factors included an increase in domestic coal consumption by public utilities. Accelerated public utility conversion from hydroelectric power to coal, because of drought conditions in California and Nevada, was particularly evident in 1988-89.

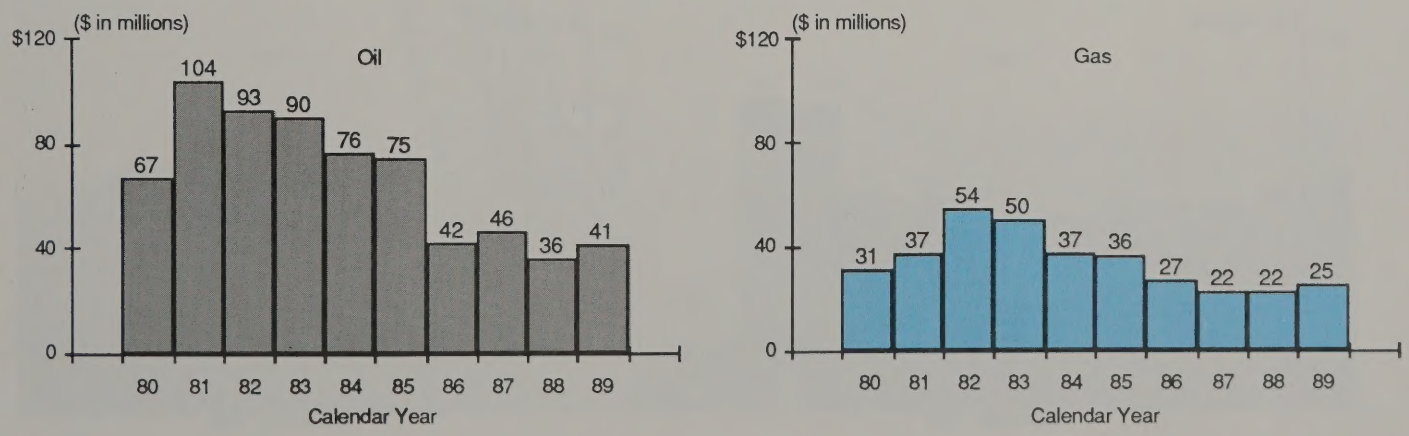


Figure 19. --- Royalties from Indian mineral leases, 1980-89

Monument Valley, Arizona. (Photo courtesy USGS.)

Royalty receipts from other Indian mineral commodities including chat, copper, gas plant products, gypsum, helium, limestone, phosphate, sand and gravel, scoria, and sulfur remained relatively stable from 1980-89 (table 14 and figure 19). Over 75 percent of the $80.8 million in royalties collected during the period was generated from copper, gas plant products, phosphate, and sand and gravel.

Indian rental collections totaled $22.2 million from 1982-89. Information addressing Indian rental receipts for 1980-81 is incomplete (tables 1 and 2).

There were 14,884 mineral leases, licenses, permits, and applications on Indian Tribal and allotted lands on 13.6 million acres administered by the Department of the Interior at the end of 1980. The figures declined to 9,436 leases, licenses, permits, and applications on 4 million acres by the end of 1989 (table 23).

There were 3,459 producing and producible Indian oil and gas leases on 1.2 million acres at the beginning of the decade. The number of leases rose steadily over the next 7 years, peaking at 4,819 leases in 1987 before experiencing a moderate decline to 4,223 leases on 1.6 million acres at the end of 1989 (table 19).

The number of Indian coal leases and the amount of acreage in production grew throughout the decade. There were 5 leases on 115,630 acres in 1980. This increased to 8 leases on 156,141 acres by the end of 1989 (table 20).

There were 47 other Indian mineral leases on 29,083 acres at the beginning of the decade. Leases and acreage rose and fell throughout the decade due to changing market conditions for the different commodities. The decade ended with 42 leases on 14,564 acres (table 21).

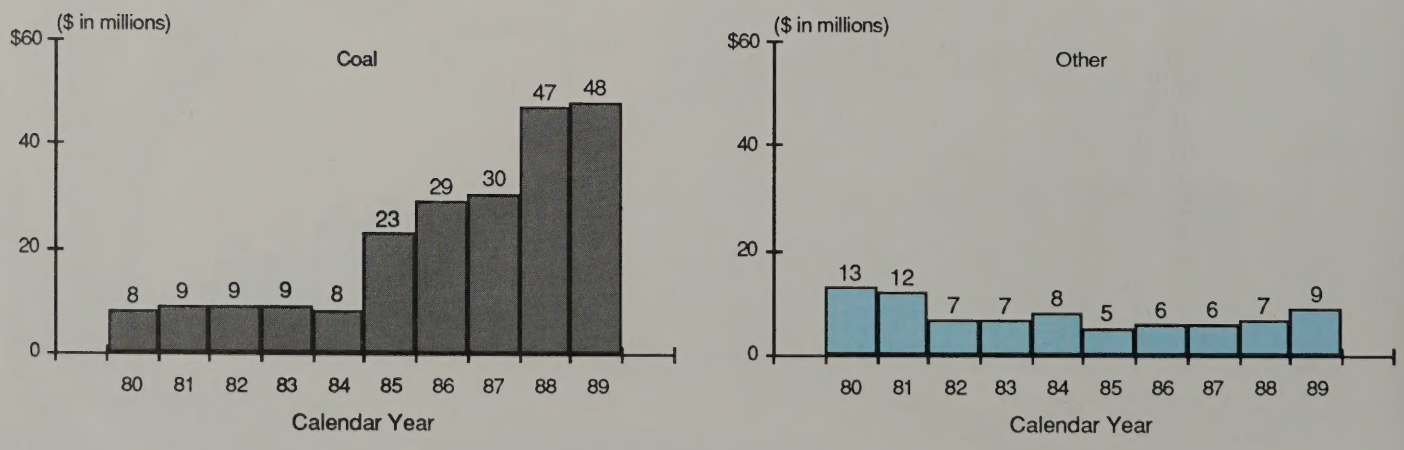
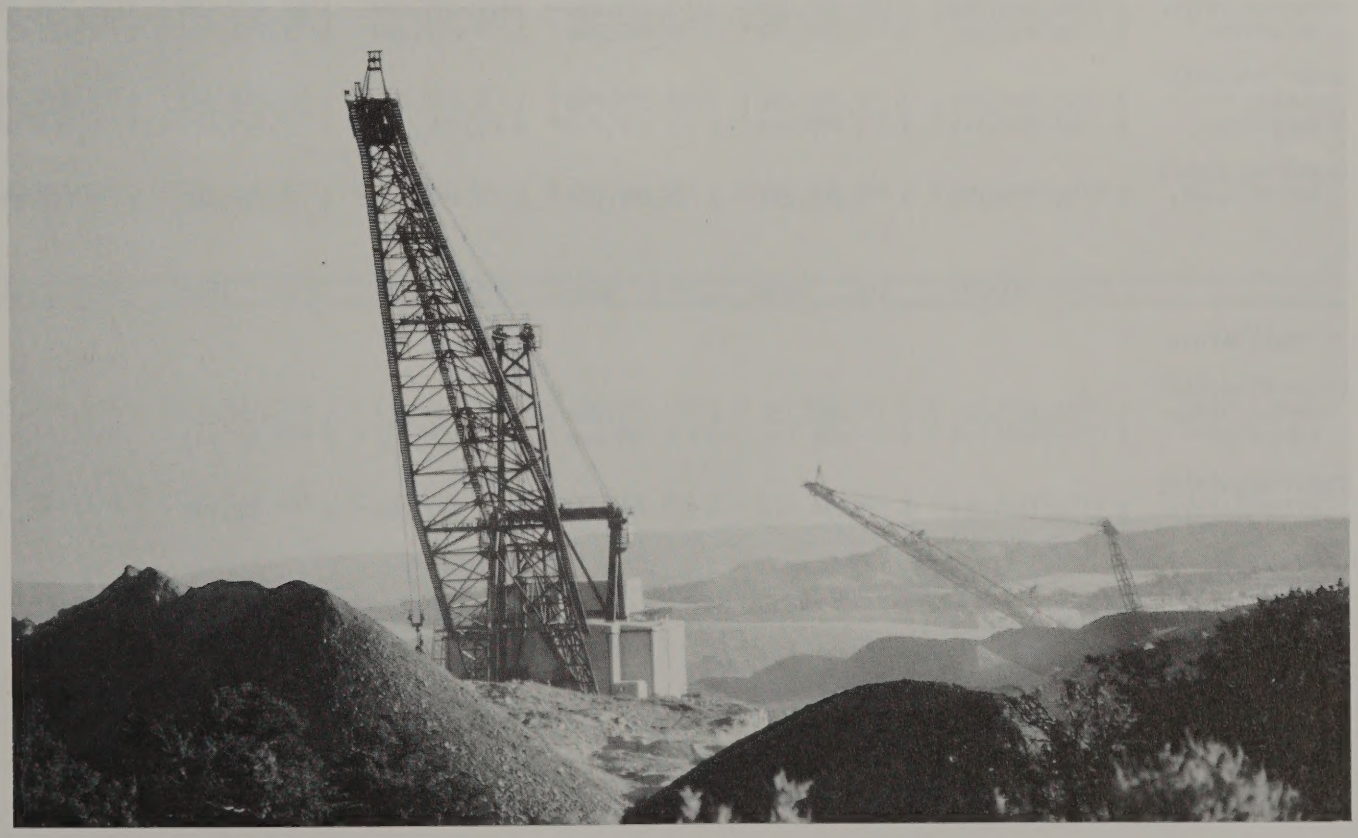


Figure 19. -- Royalties from Indian mineral leases, 1980-89 (cont.)

Participating Indian Tribes

Absentee Shawnee
Alabama-Coushatta
Arapahoe
Assiniboine Sioux
Blackfeet
Caddo
Campo Band Mission Indians
Cherokee
Cheyenne Arapaho
Cheyenne River Sioux
Chickasaw
Chilocco Indian School
Chippewa-Cree
Choctaw
Citizen Band Potawatomi
Colorado River
Creek
Crow
Delaware
Ft. Mohave
Gila River Indian Community
Hopi
Jicarilla Apache
La Posta Band Mission Indians
Navajo
Northern Ute
Pala Band Mission Indians
Pawnee
Ponca
Pyramid Lake Paiute
Sac and Fox
Salt River-Pima Maricopa
Sandia Pueblo
San Felipe Pueblo
San Juan Pueblo
Santa Ana Pueblo
Seminole
Shawnee
Shoshone
Shoshone Bannock
Southern Ute
Three Affiliated Tribes:
  Arikara
  Hidatsa
  Mandan
Tohono O'dham
Ute Mountain Ute
Wichita

Note: The Indian Tribes listed above are served by the Minerals Management Service through the Bureau of Indian Affairs.



Draglines expose coal seam on the Navajo Reservation. (Photo courtesy Pittsburgh & Midway Coal Mining Co.)

Table 14.--Summary of volume, market value, and royalties by State and commodity from Indian mineral leases, 1937-89

	1937-79	1980	1981	1982	1983	1984
Alaska						
Gas in Mcf						
Volume	277,556	0	0	0	0	0
Market Value	$ 39,269	0	0	0	0	0
Royalties	$ 6,541	0	0	0	0	0
Total Royalties All Minerals	**$ 6,541**	**0**	**0**	**0**	**0**	**0**

	1937-79	1980	1981	1982	1983	1984
Arizona						
Oil in Barrels						
Volume	17,325,218	405,239	342,757	344,841	261,089	197,821
Market Value	$ 60,698,800	$ 5,248,547	$ 11,939,909	$ 11,227,118	$ 8,154,981	$ 5,548,192
Royalties	$ 9,913,588	$ 817,619	$ 1,924,334	$ 1,826,447	$ 1,324,079	$ 890,665
Gas in Mcf						
Volume	12,439,967	128,600	85,358	66,973	50,641	50,898
Market Value	$ 2,217,158	$ 158,241	$ 106,964	$ 41,611	$ 56,981	$ 97,216
Royalties	$ 278,860	$ 19,780	$ 13,370	$ 5,201	$ 7,123	$ 12,152
Coal in Tons						
Volume	62,805,799	10,879,693	12,188,548	13,140,070	10,463,628	10,021,358
Market Value	$ 382,024,794	$135,120,054	$155,984,690	$217,983,809	$182,473,559	$146,938,153
Royalties	$ 20,619,141	$ 4,242,332	$ 5,669,264	$ 3,217,348	$ 4,114,222	$ 4,139,210
Other Products						
Market Value	$ 240,932,188	$ 5,483,598	$ 24,012,798	$ 2,833,585	$ 21,475,913	$ 6,327,705
Royalties	$ 21,267,119	$ 596,540	$ 782,069	$ 3,106,371	$ 1,793,941	$ 1,663,185
Total Royalties All Minerals	**$ 52,078,708**	**$ 5,676,271**	**$ 8,389,037**	**$ 8,155,367**	**$ 7,239,365**	**$ 6,705,212**

	1937-79	1980	1981	1982	1983	1984
California						
Other Products						
Market Value	$ 15,800,391	$ 508,136	$ 274,393	$ 199,867	$ 148,157	0
Royalties	$ 1,153,304	$ 146,573	$ 88,080	$ 131,207	$ 52,747	0
Total Royalties All Minerals	**$ 1,153,304**	**$ 146,573**	**$ 88,080**	**$ 131,207**	**$ 52,747**	**0**

Table 14.--Summary of volume, market value, and royalties by State and commodity from Indian mineral leases, 1937-89

1985	1986	1987	1988	1989	1937-89	
						Alaska
						Gas in Mcf
0	0	0	0	0	277,556	Volume
0	0	0	0	0	$ 39,269	Market Value
0	0	0	0	0	$ 6,541	Royalties
						Total Royalties
0	**0**	**0**	**0**	**0**	**$ 6,541**	**All Minerals**

1985	1986	1987	1988	1989	1937-89	
						Arizona
						Oil in Barrels
171,633	164,464	135,709	108,734	126,408	19,583,913	Volume
$ 4,616,635	$ 2,589,452	$ 2,330,655	$ 1,654,596	$ 2,185,278	$ 116,194,163	Market Value
$ 748,948	$ 423,267	$ 381,290	$ 272,042	$ 360,929	$ 18,883,208	Royalties
						Gas in Mcf
19,900	17,294	15,254	7,517	7,640	12,890,042	Volume
$ 25,829	$ 11,760	$ 14,963	$ 8,042	$ 10,418	$ 2,749,183	Market Value
$ 3,234	$ 1,446	$ 1,870	$ 1,005	$ 1,302	$ 345,343	Royalties
						Coal in Tons
9,625,000	11,550,000	11,602,674	12,318,335	11,118,215	175,713,320	Volume
$179,506,250	$184,684,500	$124,925,051	$238,341,308	$226,502,328	$2,174,484,496	Market Value
$ 8,551,697	$ 9,078,969	$ 5,887,427	$ 21,739,989	$ 19,374,672	$ 106,634,271	Royalties
						Other Products
$ 5,969,796	$ 12,161,076	$ 17,927,276	$ 18,141,340	$ 34,554,658	$ 389,819,933	Market Value
$ 909,346	$ 1,212,695	$ 2,176,490	$ 2,944,098	$ 4,495,482	$ 40,947,336	Royalties
						Total Royalties
$ 10,213,225	**$ 10,716,377**	**$ 8,447,077**	**$ 24,957,134**	**$ 24,232,385**	**$ 166,810,158**	**All Minerals**

1985	1986	1987	1988	1989	1937-89	
						California
						Other Products
$ 5,771,008	$ 2,771,676	$ 3,724,398	$ 3,780,110	$ 792,547	$ 33,770,683	Market Value
$ 721,376	$ 346,460	$ 446,928	$ 452,022	$ 46,546	$ 3,585,243	Royalties
						Total Royalties
$ 721,376	**$ 346,460**	**$ 446,928**	**$ 452,022**	**$ 46,546**	**$ 3,585,243**	**All Minerals**

Table 14.--Summary of volume, market value, and royalties by State and commodity from Indian mineral leases, 1937-89 (cont.)

	1937-79	1980	1981	1982	1983	1984
Colorado						
Oil in Barrels						
Volume	2,785,672	54,140	66,191	51,197	51,569	109,455
Market Value	$ 8,721,043	$ 1,043,361	$ 1,947,320	$ 1,637,484	$ 1,375,080	$ 3,090,423
Royalties	$ 1,266,115	$ 153,401	$ 275,459	$ 231,967	$ 200,780	$ 475,077
Gas in Mcf						
Volume	418,815,699	15,716,835	16,622,556	17,926,860	15,775,700	14,961,021
Market Value	$ 93,944,748	$ 20,421,385	$ 29,718,372	$ 36,794,125	$ 32,971,213	$ 35,199,943
Royalties	$ 11,832,566	$ 2,582,020	$ 3,783,832	$ 4,672,661	$ 4,121,402	$ 4,418,475
Coal in Tons						
Volume	1,659	0	0	0	0	0
Market Value	$ 7,723	0	0	0	0	0
Royalties	$ 198	0	0	0	0	0
Other Products						
Market Value	$ 583,578	$ 156,031	$ 109,432	$ 45,602	$ 83,800	$ 658,248
Royalties	$ 66,659	$ 8,463	$ 34,981	$ 2,533	$ 4,700	$ 61,485
Total Royalties All Minerals	**$ 13,165,538**	**$ 2,743,884**	**$ 4,094,272**	**$ 4,907,161**	**$ 4,326,882**	**$ 4,955,037**

	1937-79	1980	1981	1982	1983	1984
Florida						
Oil in Barrels						
Volume	4,688	0	0	0	0	0
Market Value	$ 51,367	0	0	0	0	0
Royalties	$ 6,422	0	0	0	0	0
Other Products						
Market Value	$ 451,024	0	0	0	0	0
Royalties	$ 45,103	0	0	0	0	0
Total Royalties All Minerals	**$ 51,525**	**0**	**0**	**0**	**0**	**0**

	1937-79	1980	1981	1982	1983	1984
Idaho						
Other Products						
Market Value	$ 140,159,852	$ 14,548,959	$ 17,853,762	0	0	0
Royalties	$ 11,627,593	$ 1,454,896	$ 1,785,376	0	0	0
Total Royalties All Minerals	**$ 11,627,593**	**$ 1,454,896**	**$ 1,785,376**	**0**	**0**	**0**

Table 14.--Summary of volume, market value, and royalties by State and commodity from Indian mineral leases, 1937-89 (cont.)

1985	1986	1987	1988	1989	1937-89	
						Colorado
						Oil in Barrels
536,535	588,257	318,938	298,018	136,452	4,996,424	Volume
$ 13,922,837	$ 10,310,421	$ 5,198,591	$ 4,785,313	$ 2,293,182	$ 54,325,055	Market Value
$ 2,101,990	$ 1,749,512	$ 954,293	$ 766,856	$ 329,878	$ 8,505,328	Royalties
						Gas in Mcf
13,945,739	17,829,157	18,989,709	20,743,420	24,288,051	595,614,747	Volume
$ 31,026,532	$ 34,846,076	$ 37,125,686	$ 37,274,001	$ 36,961,936	$ 426,284,017	Market Value
$ 3,976,224	$ 4,511,366	$ 4,787,410	$ 4,663,647	$ 4,643,232	$ 53,992,835	Royalties
						Coal in Tons
0	0	0	0	0	1,659	Volume
0	0	0	0	0	$ 7,723	Market Value
0	0	0	0	0	$ 198	Royalties
						Other Products
$ 663,614	$ 589,285	$ 355,423	$ 99,965	$ 679,729	$ 4,024,707	Market Value
$ 98,438	$ 102,132	$ 54,367	$ 12,344	$ 82,662	$ 528,764	Royalties
						Total Royalties
$ 6,176,652	**$ 6,363,010**	**$ 5,796,070**	**$ 5,442,847**	**$ 5,055,772**	**$ 63,027,125**	**All Minerals**

1985	1986	1987	1988	1989	1937-89	
						Florida
						Oil in Barrels
0	0	0	0	0	4,688	Volume
0	0	0	0	0	$ 51,367	Market Value
0	0	0	0	0	$ 6,422	Royalties
						Other Products
0	0	0	0	0	$ 451,024	Market Value
0	0	0	0	0	$ 45,103	Royalties
						Total Royalties
0	**0**	**0**	**0**	**0**	**$ 51,525**	**All Minerals**

1985	1986	1987	1988	1989	1937-89	
						Idaho
						Other Products
$ 7,524,960	$ 20,026,962	$ 18,231,839	$ 20,562,230	$ 22,681,048	$ 261,589,612	Market Value
$ 752,496	$ 2,461,808	$ 2,278,980	$ 2,365,726	$ 2,430,332	$ 25,157,207	Royalties
						Total Royalties
$ 752,496	**$ 2,461,808**	**$ 2,278,980**	**$ 2,365,726**	**$ 2,430,332**	**$ 25,157,207**	**All Minerals**

Table 14.--Summary of volume, market value, and royalties by State and commodity from Indian mineral leases, 1937-89 (cont.)

	1937-79	1980	1981	1982	1983	1984
Michigan						
Oil in Barrels						
Volume	29,535	82	326	285	245	5,645
Market Value	$ 95,449	$ 3,040	$ 12,303	$ 8,550	$ 7,150	$ 163,468
Royalties	$ 14,859	$ 247	$ 1,553	$ 1,070	$ 894	$ 18,886
Gas in Mcf						
Volume	0	0	0	0	0	0
Market Value	0	0	0	0	0	0
Royalties	0	0	0	0	0	0
Total Royalties All Minerals	**$ 14,859**	**$ 247**	**$ 1,553**	**$ 1,070**	**$ 894**	**$ 18,886**

	1937-79	1980	1981	1982	1983	1984
Minnesota						
Other Products						
Market Value	$ 178,461	0	0	0	0	0
Royalties	$ 6,455	0	0	0	0	0
Total Royalties All Minerals	**$ 6,455**	**0**	**0**	**0**	**0**	**0**

	1937-79	1980	1981	1982	1983	1984
Montana						
Oil in Barrels						
Volume	80,151,450	1,303,624	1,114,025	1,303,246	1,353,675	1,688,022
Market Value	$ 265,469,405	$ 39,911,288	$ 39,614,722	$ 40,515,438	$ 40,550,230	$ 40,535,402
Royalties	$ 36,054,232	$ 6,038,578	$ 4,694,940	$ 5,837,203	$ 5,734,286	$ 4,796,205
Gas in Mcf						
Volume	16,203,146	1,037,248	1,258,066	1,381,849	1,154,788	1,462,384
Market Value	$ 5,021,428	$ 1,696,670	$ 2,262,655	$ 2,824,263	$ 2,805,109	$ 3,258,779
Royalties	$ 764,613	$ 269,830	$ 340,476	$ 447,645	$ 442,020	$ 422,220
Coal in Tons						
Volume	23,151,017	2,742,031	3,074,386	3,704,018	2,844,377	3,349,578
Market Value	$ 146,231,960	$ 23,042,720	$ 21,025,506	$ 41,369,320	$ 31,715,281	$ 43,478,876
Royalties	$ 9,740,790	$ 1,609,606	$ 1,424,677	$ 2,603,346	$ 2,031,172	$ 1,557,407
Other Products						
Market Value	$ 15,431,806	$ 196,899	$ 550,454	$ 351,982	$ 444,215	$ 114,805
Royalties	$ 861,367	$ 9,302	$ 60,769	$ 19,062	$ 23,487	$ 18,508
Total Royalties All Minerals	**$ 47,421,002**	**$ 7,927,316**	**$ 6,520,862**	**$ 8,907,256**	**$ 8,230,965**	**$ 6,794,340**

Table 14.--Summary of volume, market value, and royalties by State and commodity from Indian mineral leases, 1937-89 (cont.)

1985	1986	1987	1988	1989	1937-89	
						Michigan
						Oil in Barrels
1,704	2,127	1,307	1,502	1,911	44,669	Volume
$ 44,676	$ 37,483	$ 22,638	$ 24,240	$ 33,718	$ 452,715	Market Value
$ 5,618	$ 6,432	$ 2,982	$ 3,550	$ 5,072	$ 61,163	Royalties
						Gas in Mcf
0	1,030	108	22,072	416	23,626	Volume
0	$ 670	$ 63	$ 21,189	$ 1,016	$ 22,938	Market Value
0	$ 28	$ 8	$ 2,649	$ 126	$ 2,811	Royalties
						Total Royalties
$ 5,618	**$ 6,460**	**$ 2,990**	**$ 6,199**	**$ 5,198**	**$ 63,974**	**All Minerals**

1985	1986	1987	1988	1989	1937-89	
						Minnesota
						Other Products
0	0	0	0	0	$ 178,461	Market Value
0	0	0	0	0	$ 6,455	Royalties
						Total Royalties
0	**0**	**0**	**0**	**0**	**$ 6,455**	**All Minerals**

1985	1986	1987	1988	1989	1937-89	
						Montana
						Oil in Barrels
1,285,787	1,591,378	1,259,170	1,053,218	994,782	93,098,377	Volume
$ 38,969,540	$ 24,436,384	$ 20,179,391	$ 14,936,681	$ 16,531,892	$ 581,650,373	Market Value
$ 5,335,189	$ 3,324,434	$ 2,846,750	$ 2,232,566	$ 2,567,636	$ 79,462,019	Royalties
						Gas in Mcf
1,636,524	1,412,892	1,177,288	1,407,422	1,171,877	29,303,484	Volume
$ 3,771,299	$ 3,236,678	$ 2,178,272	$ 2,313,424	$ 2,015,268	$ 31,383,845	Market Value
$ 595,016	$ 461,908	$ 313,201	$ 330,412	$ 284,935	$ 4,672,276	Royalties
						Coal in Tons
2,949,283	1,168,836	1,231,669	1,926,826	2,614,973	48,756,994	Volume
$ 32,667,157	$ 13,378,181	$ 10,987,034	$ 14,990,558	$ 18,855,032	$ 397,741,625	Market Value
$ 2,015,896	$ 812,464	$ 708,859	$ 1,126,593	$ 1,489,332	$ 25,120,142	Royalties
						Other Products
$ 145,029	$ 101,786	$ 4,872	$ 14,601	$ 25,988	$ 17,382,437	Market Value
$ 22,860	$ 15,890	$ 700	$ 910	$ 1,037	$ 1,033,892	Royalties
						Total Royalties
$ 7,968,961	**$ 4,614,696**	**$ 3,869,510**	**$ 3,690,481**	**$ 4,342,940**	**$ 110,288,329**	**All Minerals**

Table 14.--Summary of volume, market value, and royalties by State and commodity from Indian mineral leases, 1937-89 (cont.)

	1937-79	1980	1981	1982	1983	1984
Nevada						
Other Products						
Market Value	$ 1,450,203	$ 274,331	$ 1,167,237	$ 362,850	$ 75,605	0
Royalties	$ 194,870	$ 54,649	$ 40,802	$ 28,360	$ 7,243	0
Total Royalties All Minerals	**$ 194,870**	**$ 54,649**	**$ 40,802**	**$ 28,360**	**$ 7,243**	**0**

	1937-79	1980	1981	1982	1983	1984
New Mexico						
Oil in Barrels						
Volume	91,674,985	2,028,233	2,151,534	1,873,858	1,792,850	1,025,645
Market Value	$ 365,549,110	$ 61,309,561	$ 75,892,449	$ 65,100,875	$ 55,557,600	$ 22,223,798
Royalties	$ 50,169,300	$ 8,390,707	$ 10,525,182	$ 9,009,444	$ 8,446,713	$ 3,262,278
Gas in Mcf						
Volume	1,346,617,053	56,446,499	57,567,206	57,225,219	49,358,200	22,295,531
Market Value	$ 436,931,481	$116,155,519	$145,551,121	$166,168,362	$148,074,600	$ 69,737,745
Royalties	$ 57,250,807	$ 15,515,933	$ 18,770,971	$ 21,706,536	$ 18,509,300	$ 9,519,558
Coal in Tons						
Volume	85,632,998	10,189,991	7,023,191	12,087,367	12,312,404	7,153,096
Market Value	$ 314,641,966	$ 90,715,478	$ 88,475,838	$149,796,232	$191,904,985	$ 71,676,710
Royalties	$ 13,538,944	$ 2,017,739	$ 1,510,363	$ 2,709,944	$ 3,271,547	$ 1,917,142
Other Products						
Market Value	$ 486,229,381	$ 43,056,212	$ 36,859,820	$ 8,749,377	$ 55,691,587	$ 58,259,797
Royalties	$ 71,669,036	$ 9,918,857	$ 8,212,124	$ 1,622,868	$ 3,933,607	$ 4,239,471
Total Royalties All Minerals	**$ 192,628,087**	**$ 35,843,236**	**$ 39,018,640**	**$ 35,048,792**	**$ 34,161,167**	**$ 18,938,449**

	1937-79	1980	1981	1982	1983	1984
North Dakota						
Oil in Barrels						
Volume	8,249,897	80,686	132,995	114,888	104,293	148,085
Market Value	$ 26,545,817	$ 1,591,579	$ 4,455,461	$ 3,607,651	$ 3,002,487	$ 4,279,034
Royalties	$ 3,369,139	$ 208,130	$ 620,969	$ 503,846	$ 432,660	$ 567,985
Gas in Mcf						
Volume	9,746,447	99,871	165,561	130,035	61,529	130,126
Market Value	$ 1,039,501	$ 65,547	$ 104,524	$ 154,128	$ 51,415	$ 118,233
Royalties	$ 130,310	$ 8,213	$ 13,206	$ 22,143	$ 6,574	$ 15,033
Coal in Tons						
Volume	2,921	0	0	0	0	0
Market Value	$ 8,834	0	0	0	0	0
Royalties	$ 540	0	0	0	0	0
Other Products						
Market Value	$ 4,197,597	$ 350,865	$ 185,363	$ 117,022	$ 42,675	$ 90,381
Royalties	$ 336,855	$ 14,629	$ 7,732	$ 4,890	$ 2,000	$ 11,353
Total Royalties All Minerals	**$ 3,836,844**	**$ 230,972**	**$ 641,907**	**$ 530,879**	**$ 441,234**	**$ 594,371**

Table 14.--Summary of volume, market value, and royalties by State and commodity from Indian mineral leases, 1937-89 (cont.)

1985	1986	1987	1988	1989	1937-89	
						Nevada
0	$ 1,748,149	$ 1,292,587	$ 1,956,496	$ 1,802,814	$ 10,130,272	Other Products Market Value
0	$ 167,822	$ 102,684	$ 156,701	$ 150,129	$ 903,260	Royalties
0	**$ 167,822**	**$ 102,684**	**$ 156,701**	**$ 150,129**	**$ 903,260**	**Total Royalties All Minerals**

1985	1986	1987	1988	1989	1937-89	
						New Mexico
990,437	1,803,995	2,363,197	1,932,611	1,490,661	109,128,006	Oil in Barrels Volume
$ 23,588,900	$ 20,201,618	$ 38,333,688	$ 26,333,852	$ 26,109,382	$ 780,200,833	Market Value
$ 3,346,731	$ 2,743,651	$ 5,115,260	$ 3,587,417	$ 3,499,813	$ 108,096,496	Royalties
23,912,359	16,225,790	16,571,091	19,053,982	24,707,624	1,689,980,554	Gas in Mcf Volume
$ 73,237,131	$ 47,300,933	$ 35,469,326	$ 36,611,000	$ 42,749,789	$1,317,987,007	Market Value
$ 9,683,090	$ 6,176,038	$ 4,695,317	$ 4,809,241	$ 5,458,029	$ 172,094,820	Royalties
12,789,903	10,210,329	11,157,838	11,984,923	13,249,499	193,791,539	Coal in Tons Volume
$229,215,685	$209,236,271	$306,648,588	$237,139,427	$253,595,409	$2,143,046,589	Market Value
$ 12,835,743	$ 19,585,540	$ 23,885,088	$ 23,825,185	$ 26,813,923	$ 131,911,158	Royalties
$ 10,582,118	$ 3,223,336	$ 2,749,069	$ 4,732,756	$ 13,064,068	$ 723,197,521	Other Products Market Value
$ 1,185,068	$ 399,487	$ 343,865	$ 585,752	$ 1,602,034	$ 103,712,169	Royalties
$ 27,050,632	**$ 28,904,716**	**$ 34,039,530**	**$ 32,807,595**	**$ 37,373,799**	**$ 515,814,643**	**Total Royalties All Minerals**

1985	1986	1987	1988	1989	1937-89	
						North Dakota
103,619	94,303	114,391	127,483	93,598	9,364,238	Oil in Barrels Volume
$ 2,543,881	$ 1,420,936	$ 1,944,077	$ 1,896,403	$ 1,587,414	$ 52,874,740	Market Value
$ 393,507	$ 191,603	$ 272,804	$ 275,635	$ 230,633	$ 7,066,911	Royalties
141,227	30,002	190,826	140,620	136,706	10,972,950	Gas in Mcf Volume
$ 109,407	$ 24,256	$ 124,586	$ 125,150	$ 77,684	$ 1,994,431	Market Value
$ 15,891	$ 3,324	$ 15,824	$ 16,334	$ 10,165	$ 257,017	Royalties
0	0	0	0	0	2,921	Coal in Tons Volume
0	0	0	0	0	$ 8,834	Market Value
0	0	0	0	0	$ 540	Royalties
$ 22,705	$ 1,335	$ 23,955	$ 137,263	$ 82,662	$ 5,251,823	Other Products Market Value
$ 2,849	$ 167	$ 2,994	$ 13,412	$ 8,828	$ 405,709	Royalties
$ 412,247	**$ 195,094**	**$ 291,622**	**$ 305,381**	**$ 249,626**	**$ 7,730,177**	**Total Royalties All Minerals**

Table 14.--Summary of volume, market value, and royalties by State and commodity from Indian mineral leases, 1937-89 (cont.)

	1937-79	1980	1981	1982	1983	1984
Oklahoma						
Oil in Barrels						
Volume	336,632,418	3,679,365	3,377,106	3,443,979	3,375,100	4,119,320
Market Value	$1,008,000,731	$ 92,375,905	$115,787,004	$107,110,301	$ 98,721,700	$123,306,661
Royalties	$ 119,820,249	$ 12,480,631	$ 16,235,617	$ 15,743,766	$ 14,502,200	$ 15,893,918
Gas in Mcf						
Volume	630,136,416	25,294,586	23,757,251	31,452,047	30,823,000	46,175,485
Market Value	$ 186,855,819	$ 42,135,536	$ 49,219,843	$103,442,938	$103,257,100	$160,375,885
Royalties	$ 24,179,672	$ 5,962,793	$ 7,445,012	$ 17,405,493	$ 17,367,800	$ 17,186,131
Coal in Tons						
Volume	9,370,066	5,620	0	0	0	0
Market Value	$ 37,097,212	$ 134,879	0	0	0	0
Royalties	$ 1,049,483	$ 4,384	0	$ (3,090)	0	0
Other Products						
Market Value	$ 307,180,887	$ 489,816	$ 629,760	$ 1,529,787	$ 490,153	$ 1,673,209
Royalties	$ 23,199,867	$ 91,770	$ 115,059	$ 138,202	$ 130,754	$ 190,510
Total Royalties All Minerals	**$ 168,249,271**	**$ 18,539,578**	**$ 23,795,688**	**$ 33,284,371**	**$ 32,000,754**	**$ 33,270,559**

	1937-79	1980	1981	1982	1983	1984
South Dakota						
Oil in Barrels						
Volume	57,875	3,706	1,428	2,389	1,296	5,676
Market Value	$ 694,497	$ 87,005	$ 35,137	$ 76,410	$ 35,950	$ 152,520
Royalties	$ 115,750	$ 14,501	$ 5,856	$ 12,735	$ 5,990	$ 29,140
Coal in Tons						
Volume	15,876	0	0	0	0	0
Market Value	$ 72,302	0	0	0	0	0
Royalties	$ 3,175	0	0	0	0	0
Other Products						
Market Value	$ 5,950,624	0	0	0	0	0
Royalties	$ 474,609	0	0	0	0	0
Total Royalties All Minerals	**$ 593,534**	**$ 14,501**	**$ 5,856**	**$ 12,735**	**$ 5,990**	**$ 29,140**

	1937-79	1980	1981	1982	1983	1984
Texas						
Oil in Barrels						
Volume	0	0	0	0	0	0
Market Value	0	0	0	0	0	0
Royalties	0	0	0	0	0	0
Gas in Mcf						
Volume	0	0	0	0	0	0
Market Value	0	0	0	0	0	0
Royalties	0	0	0	0	0	0
Total Royalties All Minerals	**0**	**0**	**0**	**0**	**0**	**0**

Table 14.--Summary of volume, market value, and royalties by State and commodity from Indian mineral leases, 1937-89 (cont.)

1985	1986	1987	1988	1989	1937-89	
						Oklahoma
						Oil in Barrels
4,076,889	4,086,478	3,764,771	3,221,375	2,926,504	372,703,305	Volume
$102,314,611	$ 61,392,515	$ 65,121,512	$ 49,782,893	$ 51,139,525	$1,875,053,358	Market Value
$ 13,694,100	$ 8,046,769	$ 8,433,077	$ 6,523,640	$ 7,063,189	$ 238,437,156	Royalties
						Gas in Mcf
44,916,022	45,096,525	57,375,400	45,578,928	40,978,372	1,021,584,032	Volume
$150,468,667	$102,710,719	$ 81,475,935	$ 71,473,941	$ 65,413,470	$1,116,829,853	Market Value
$ 15,799,212	$ 10,172,241	$ 8,636,325	$ 8,464,378	$ 8,105,099	$ 140,724,156	Royalties
						Coal in Tons
0	0	0	0	0	9,375,686	Volume
0	0	0	0	0	$ 37,232,091	Market Value
0	0	0	0	0	$ 1,050,777	Royalties
						Other Products
$ 1,434,183	$ 1,321,352	$ 2,602,963	$ 2,742,994	$ 3,315,661	$ 323,410,765	Market Value
$ 204,204	$ 139,978	$ 303,188	$ 202,080	$ 255,916	$ 24,971,528	Royalties
						Total Royalties
$ 29,697,516	**$ 18,358,988**	**$ 17,372,590**	**$ 15,190,098**	**$ 15,424,204**	**$ 405,183,617**	**All Minerals**

1985	1986	1987	1988	1989	1937-89	
						South Dakota
						Oil in Barrels
3,299	841	6,375	6,389	5,781	95,055	Volume
$ 74,181	$ 17,038	$ 88,770	$ 72,719	$ 81,431	$ 1,415,658	Market Value
$ 14,089	$ 3,408	$ 17,754	$ 14,544	$ 16,243	$ 250,010	Royalties
						Coal in Tons
0	0	0	0	0	15,876	Volume
0	0	0	0	0	$ 72,302	Market Value
0	0	0	0	0	$ 3,175	Royalties
						Other Products
0	0	0	0	0	$ 5,950,624	Market Value
0	0	0	0	0	$ 474,609	Royalties
						Total Royalties
$ 14,089	**$ 3,408**	**$ 17,754**	**$ 14,544**	**$ 16,243**	**$ 727,794**	**All Minerals**

1985	1986	1987	1988	1989	1937-89	
						Texas
						Oil in Barrels
0	0	0	0	29,655	29,655	Volume
0	0	0	0	$ 548,322	$ 548,322	Market Value
0	0	0	0	$ 68,540	$ 68,540	Royalties
						Gas in Mcf
0	0	0	0	256,610	256,610	Volume
0	0	0	0	$ 397,745	$ 397,745	Market Value
0	0	0	0	$ 50,116	$ 50,116	Royalties
						Total Royalties
0	**0**	**0**	**0**	**$ 118,656**	**$ 118,656**	**All Minerals**

Table 14.--Summary of volume, market value, and royalties by State and commodity from Indian mineral leases, 1937-89 (cont.)

	1937-79	1980	1981	1982	1983	1984
Utah						
Oil in Barrels						
Volume	335,233,795	9,597,679	9,014,098	8,274,857	8,693,450	10,871,207
Market Value	$1,375,753,961	$167,272,016	$308,136,794	$258,292,771	$274,283,900	$295,333,299
Royalties	$ 208,890,803	$ 26,573,970	$ 48,345,830	$ 41,436,094	$ 42,882,900	$ 37,188,013
Gas in Mcf						
Volume	229,391,406	3,729,220	7,847,505	9,435,261	6,753,000	6,392,827
Market Value	$ 69,314,846	$ 18,243,023	$ 18,119,111	$ 27,793,618	$ 32,845,300	$ 22,144,211
Royalties	$ 10,626,408	$ 2,982,001	$ 2,965,454	$ 4,574,342	$ 5,467,500	$ 2,873,495
Other Products						
Market Value	$ 49,484,742	$ 18,370,253	$ 16,386,712	$ 44,484,658	$ 17,823,000	$ 8,282,561
Royalties	$ 2,607,153	$ 1,076,132	$ 895,026	$ 2,161,887	$ 943,800	$ 1,187,251
Total Royalties All Minerals	**$ 222,124,364**	**$ 30,632,103**	**$ 52,206,310**	**$ 48,172,323**	**$ 49,294,200**	**$ 41,248,759**

	1937-79	1980	1981	1982	1983	1984
Washington						
Gas in Mcf						
Volume	2,939	0	0	0	0	0
Market Value	$ 1,170	0	0	0	0	0
Royalties	$ 146	0	0	0	0	0
Other Products						
Market Value	$ 48,117,524	$ 110,243	$ 97,059	$ 106,094	$ 72,868	$ 46,303
Royalties	$ 4,917,858	$ 19,342	$ 19,613	$ 14,803	$ 16,140	$ 20,356
Total Royalties All Minerals	**$ 4,918,004**	**$ 19,342**	**$ 19,613**	**$ 14,803**	**$ 16,140**	**$ 20,356**

	1937-79	1980	1981	1982	1983	1984
Wisconsin						
Other Products						
Market Value	$ 40,711	0	0	0	0	0
Royalties	$ 3,271	0	0	0	0	0
Total Royalties All Minerals	**$ 3,271**	**0**	**0**	**0**	**0**	**0**

Table 14.--Summary of volume, market value, and royalties by State and commodity from Indian mineral leases, 1937-89 (cont.)

1985	1986	1987	1988	1989	1937-89	
						Utah
						Oil in Barrels
9,541,767	8,182,235	7,800,045	7,161,520	6,762,666	421,133,319	Volume
$244,070,958	$128,820,858	$138,514,859	$109,382,351	$125,647,412	$3,425,509,179	Market Value
$ 34,425,187	$ 18,824,315	$ 19,858,199	$ 16,217,370	$ 18,919,988	$ 513,562,669	Royalties
						Gas in Mcf
9,983,743	6,896,952	6,953,376	4,828,629	6,419,454	298,631,373	Volume
$ 26,130,179	$ 16,523,387	$ 13,800,057	$ 9,691,972	$ 13,196,980	$ 267,802,684	Market Value
$ 3,164,970	$ 2,322,417	$ 2,015,060	$ 1,586,466	$ 2,005,646	$ 40,583,759	Royalties
						Other Products
$ 8,474,699	$ 6,771,898	$ 3,480,708	$ 2,774,385	$ 1,753,902	$ 178,087,518	Market Value
$ 1,211,113	$ 985,901	$ 499,509	$ 311,171	$ 206,018	$ 12,084,961	Royalties
						Total Royalties
$ 38,801,270	**$ 22,132,633**	**$ 22,372,768**	**$ 18,115,007**	**$ 21,131,652**	**$ 566,231,389**	**All Minerals**

1985	1986	1987	1988	1989	1937-89	
						Washington
						Gas in Mcf
0	0	0	0	0	2,939	Volume
0	0	0	0	0	$ 1,170	Market Value
0	0	0	0	0	$ 146	Royalties
						Other Products
$ 110,313	$ 63,732	$ 33,456	$ 33,261	$ 27,620	$ 48,818,473	Market Value
$ 13,789	$ 7,967	$ 4,182	$ 4,264	$ 3,615	$ 5,041,929	Royalties
						Total Royalties
$ 13,789	**$ 7,967**	**$ 4,182**	**$ 4,264**	**$ 3,615**	**$ 5,042,075**	**All Minerals**

1985	1986	1987	1988	1989	1937-89	
						Wisconsin
						Other Products
0	0	0	0	0	$ 40,711	Market Value
0	0	0	0	0	$ 3,271	Royalties
						Total Royalties
0	**0**	**0**	**0**	**0**	**$ 3,271**	**All Minerals**

Table 14.--Summary of volume, market value, and royalties by State and commodity from Indian mineral leases, 1937-89 (cont.)

	1937-79	1980	1981	1982	1983	1984
Wyoming						
Oil in Barrels						
Volume	214,541,430	4,839,034	5,744,444	4,400,381	4,449,600	3,630,471
Market Value	$ 608,182,008	$ 80,592,737	$147,421,863	$123,715,600	$111,405,831	$ 90,254,288
Royalties	$ 81,221,735	$ 12,508,129	$ 21,289,668	$ 17,957,252	$ 16,197,145	$ 12,850,855
Gas in Mcf						
Volume	237,743,872	12,885,366	12,179,482	15,378,204	11,779,630	8,648,553
Market Value	$ 59,949,366	$ 21,107,916	$ 23,144,537	$ 37,394,020	$ 30,085,437	$ 19,632,231
Royalties	$ 8,949,971	$ 3,385,668	$ 3,547,986	$ 5,544,353	$ 4,366,177	$ 2,848,084
Other Products						
Market Value	$ 3,444,167	$ 207,762	$ 545,441	$ 724,930	$ 742,390	$ 237,477
Royalties	$ 331,554	$ 24,018	$ 28,107	$ 30,818	$ 32,295	$ 112,852
Total Royalties All Minerals	**$ 90,503,260**	**$ 15,917,815**	**$ 24,865,761**	**$ 23,532,423**	**$ 20,595,617**	**$ 15,811,791**

	1937-79	1980	1981	1982	1983	1984
Indian Totals						
Oil in Barrels						
Volume	1,086,686,963	21,991,788	21,944,904	19,809,921	20,083,167	21,801,347
Market Value	$3,719,762,188	$449,435,039	$705,242,962	$611,292,198	$593,094,909	$584,887,085
Royalties	$ 510,842,192	$ 67,185,913	$103,919,408	$ 92,559,824	$ 89,727,647	$ 75,973,022
Gas in Mcf						
Volume	2,901,374,501	115,338,225	119,482,985	132,996,448	115,756,488	100,116,825
Market Value	$ 855,314,786	$219,983,837	$268,227,127	$374,613,065	$350,147,155	$310,564,243
Royalties	$ 114,019,894	$ 30,726,238	$ 36,880,307	$ 54,378,374	$ 50,287,896	$ 37,295,148
Coal in Tons						
Volume	180,980,336	23,817,335	22,286,125	28,931,455	25,620,409	20,524,032
Market Value	$ 880,084,791	$249,013,131	$265,486,034	$409,149,361	$406,093,825	$262,093,739
Royalties	$ 44,952,271	$ 7,874,061	$ 8,604,304	$ 8,527,548	$ 9,416,941	$ 7,613,759
Other Products						
Market Value	$1,319,633,136	$ 83,753,105	$ 98,672,231	$ 59,505,754	$ 97,090,363	$ 75,690,486
Royalties	$ 138,762,673	$ 13,415,171	$ 12,069,738	$ 7,261,001	$ 6,940,714	$ 7,504,971
Total Royalties All Minerals	**$ 808,577,030**	**$119,201,383**	**$161,473,757**	**$162,726,747**	**$156,373,198**	**$128,386,900**

Table 14.--Summary of volume, market value, and royalties by State and commodity from Indian mineral leases, 1937-89 (cont.)

1985	1986	1987	1988	1989	1937-89	
						Wyoming
						Oil in Barrels
3,720,942	3,463,830	3,225,966	2,965,278	2,903,945	253,885,321	Volume
$ 89,822,625	$ 45,987,552	$ 50,040,829	$ 38,141,657	$ 43,644,439	$1,429,209,429	Market Value
$ 14,960,615	$ 7,106,979	$ 7,931,388	$ 6,153,059	$ 7,773,964	$ 205,950,789	Royalties
						Gas in Mcf
8,350,351	10,215,245	6,272,923	11,330,346	16,485,447	351,269,419	Volume
$ 19,374,653	$ 22,678,369	$ 12,418,389	$ 17,838,303	$ 29,708,116	$ 293,331,337	Market Value
$ 2,615,532	$ 3,615,217	$ 1,775,283	$ 2,617,909	$ 4,074,330	$ 43,340,510	Royalties
						Other Products
$ 259,686	$ 213,547	$ 263,178	$ 54,103	$ 9,689	$ 6,702,370	Market Value
$ 20,690	$ 27,023	$ 38,227	$ 3,701	$ 411	$ 649,696	Royalties
						Total Royalties
$ 17,596,837	**$ 10,749,219**	**$ 9,744,898**	**$ 8,774,669**	**$ 11,848,705**	**$ 249,940,995**	**All Minerals**

1985	1986	1987	1988	1989	1937-89	
						Indian Totals
						Oil in Barrels
20,432,612	19,977,908	18,989,869	16,876,128	15,472,363	1,284,066,970	Volume
$519,968,844	$295,214,257	$321,775,010	$247,010,705	$269,801,995	$8,317,485,192	Market Value
$ 75,025,974	$ 42,420,370	$ 45,813,797	$ 36,046,679	$ 40,835,885	$1,180,350,711	Royalties
						Gas in Mcf
102,905,865	97,724,887	107,545,975	103,112,936	114,452,197	4,010,807,332	Volume
$304,143,697	$227,332,848	$182,607,277	$175,357,022	$190,532,422	$3,458,823,479	Market Value
$ 35,853,169	$ 27,263,985	$ 22,240,298	$ 22,492,041	$ 24,632,980	$ 456,070,330	Royalties
						Coal in Tons
25,364,186	22,929,165	23,992,181	26,230,084	26,982,687	427,657,995	Volume
$441,389,092	$407,298,952	$442,560,673	$490,471,293	$498,952,769	$4,752,593,660	Market Value
$ 23,403,336	$ 29,476,973	$ 30,481,374	$ 46,691,767	$ 47,677,927	$ 264,720,261	Royalties
						Other Products
$ 40,958,111	$ 48,994,134	$ 50,689,724	$ 55,029,504	$ 78,790,386	$2,008,806,934	Market Value
$ 5,142,229	$ 5,867,330	$ 6,252,114	$ 7,052,181	$ 9,283,010	$ 219,551,132	Royalties
						Total Royalties
$139,424,708	**$105,028,658**	**$104,787,583**	**$112,282,668**	**$122,429,802**	**$2,120,692,434**	**All Minerals**

Distribution of Federal and Indian Mineral Revenues

Revenues collected from mineral leasing on Federal lands were distributed to States, to the General Fund of the U.S. Treasury, and to a number of designated special-purpose accounts administered by the Department of the Interior. Revenues collected from Indian leases were disbursed by the Bureau of Indian Affairs (BIA) to the appropriate Indian Tribes and allottees. Formulas for these disbursements are established by law.

Over $53.4 billion was disbursed from Federal and Indian mineral leases in Fiscal Years (FY) 1982-89. Disbursement data for special-purpose accounts during FY 1980-81 is incomplete. The General Fund of the U.S. Treasury received 70.9 percent, or $37.9 billion, of all revenues from FY 1982-89. The Treasury figure includes nearly $2.2 billion in Windfall Profit Tax (WPT) collections during the 8-year period. The WPT was an excise tax collected on windfall profits from taxable crude oil removed from the premises of wells in the United States or in U.S. possessions after February 29, 1980. The WPT was repealed by Congress on August 23, 1988. Payments to three special-purpose accounts, the Historic Preservation Fund, the Reclamation Fund, and the Land and Water Conservation Fund, amounted to $10.6 billion, or 19.9 percent, of total mineral revenues. Another $3.8 billion, or 7.1 percent, was disbursed to 30 States during the 8-year period. Indian revenues directed to Tribal governments and individual allotment owners equaled 2.1 percent, or $1.1 billion, during the same period (figure 20).

The Mineral Lands Leasing Act of 1920 provides that States whose boundaries encompass Federal mineral leases will share in the revenues from those leases. State disbursement data, unlike special-purpose account data, is available for FY 1980-89. Royalty, rental, and bonus revenues totaling nearly $4.5 billion were distributed to 30 mineral producing States

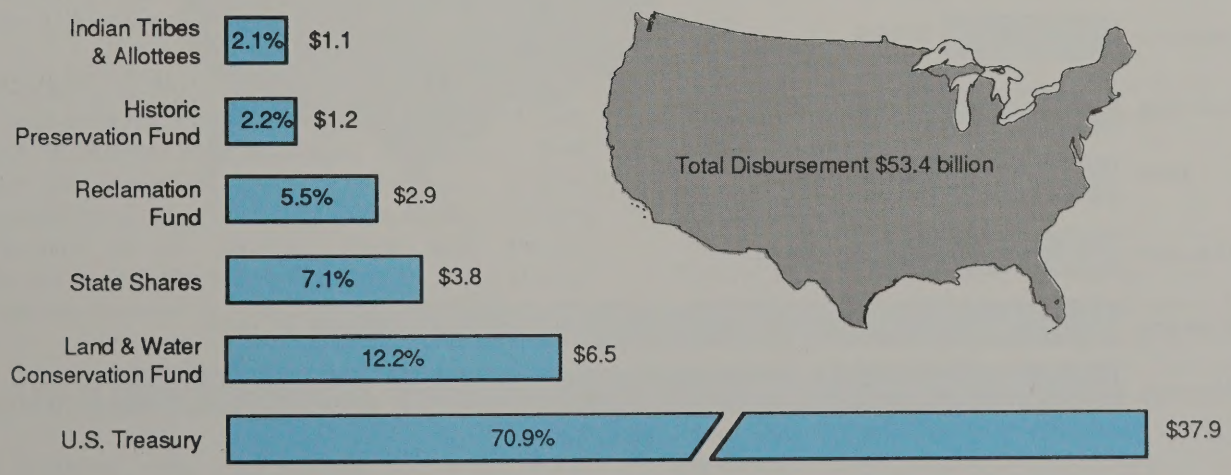


Figure 20. --- Disbursement of mineral revenues, in billions, from Federal and Indian mineral leases, Fiscal Years 1982-89

Employees in the RMP Royalty Compliance and Fiscal Accounting Divisions perform audits and ensure the accuracy of revenue disbursements.

during the 10-year period. Six western States, including California, Colorado, Montana, New Mexico, Utah, and Wyoming, received 88.9 percent of the funds (table 15 and figure 21).

The periodic disbursement of all mineral royalty, rent, and bonus receipts is governed by legislation and regulations. All mineral revenues shared with the States have been disbursed each month since October 1, 1983, under the provisions of section 104 of the Federal Oil and Gas Royalty Management Act of 1982 (FOGRMA). Tribal and allottee revenues, by law, must be processed and distributed to BIA for disbursement to Indian accounts as quickly as possible after receipt. The Department must pay interest to States and Indians on royalties that were not disbursed in a timely manner in accordance with section 111 of FOGRMA.

Outer Continental Shelf Lands

Royalty revenues from Federal offshore leases on the Outer Continental Shelf (OCS) are distributed to the Land and Water Conservation Fund, the Historic Preservation Fund, and the General Fund of the U.S. Treasury.

Transfers are made in each fiscal year from OCS royalties, rents, and bonuses in order to maintain the Land and Water Conservation Fund's annual authorization of $900 million. These transfers amounted to $6.5 billion during the period FY 1982-89. Transfers to the Historic Preservation Fund from OCS royalties, rents, and bonuses amounted to $150 million annually, or $1.2 billion, over the 8-year period. The balance of offshore revenue receipts is directed into the General Fund of the U.S. Treasury (figure 20).

The Outer Continental Shelf Lands Act Amendments of 1978 provided that the States were to receive a "fair and equitable" division of revenues generated from the leasing of lands within 3 miles of the seaward boundary of a coastal State which contain one or more oil and gas pools or fields underlying both the OCS and lands subject to the jurisdiction of the State. The States and the Federal Government could not reach an agreement concerning the meaning of the term "fair and equitable." Revenues generated

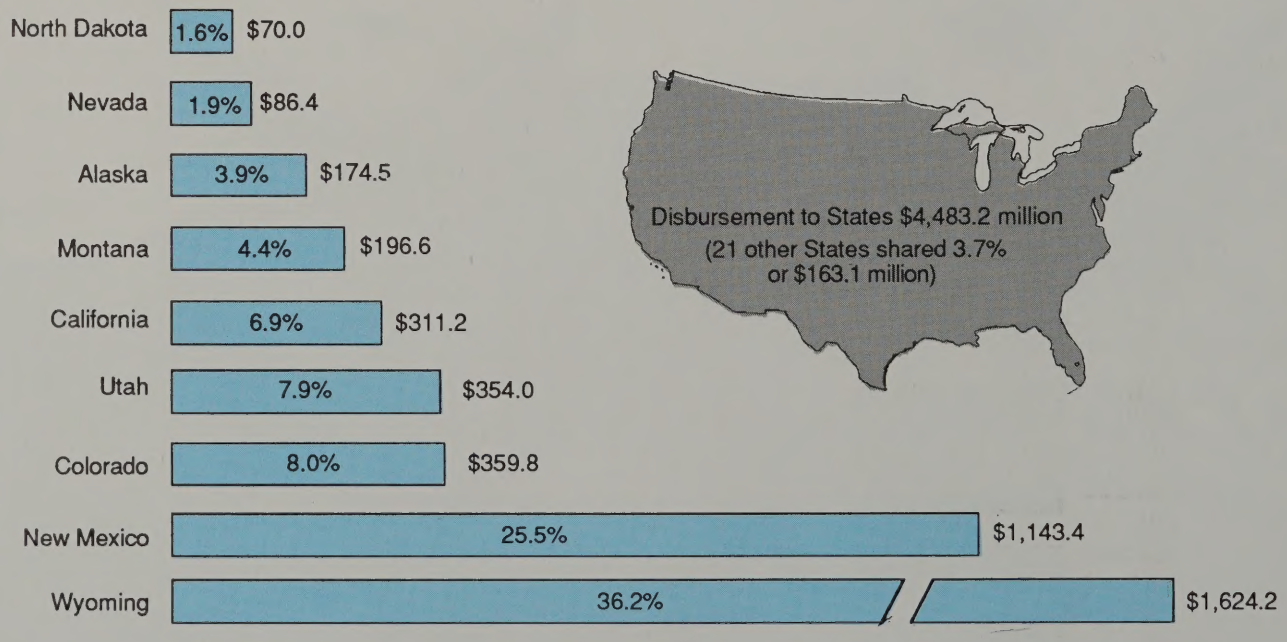


Figure 21. --- Disbursement to States of royalties and other revenues, in millions, Fiscal Years 1980-89

in the 3-mile boundary were placed into a section 8(g) escrow fund beginning in August 1979. Revenues from the Beaufort Sea in Alaska were placed in a second escrow fund under section 7 beginning in December 1979.

Congress resolved the dispute over the meaning of "fair and equitable" in the Outer Continental Shelf Lands Act Amendments of 1985, Public Law 99-272. The law provided for the following distribution of revenues to the States under section 8(g): escrow funds disbursed in FY 1986-87; a series of annual settlement payments to be disbursed to the States over a 15-year period from FY 1987-2001; and recurring annual disbursements of 27 percent of royalty, rent, and bonus revenues received from production in the 3-mile boundary on the OCS. Congress passed a second law, Public Law 100-202, to distribute some of the section 7 Beaufort Sea escrow funds to the State of Alaska in FY 1988 (table 17 and figure 22). These funds are not included in any other table in this report.

Public Lands

The royalty revenues collected from public lands leases are distributed directly to States or paid into either special-purpose accounts or the General Fund of the U.S. Treasury.

States other than Alaska receive 50 percent of all royalties, rents, and bonuses collected from any public lands leases located within their respective boundaries. Forty percent of the remaining mineral revenues from public lands leases is deposited in the Reclamation Fund, and 10 percent is directed to the General Fund of the U.S. Treasury.

Alaska receives 90 percent of all royalties, rents, and bonuses paid for mineral production on public lands leases in Alaska after deduction of payments paid under the provisions of the Alaska Native Claims Settlement Act of 1971. The State further receives 50 percent of all royalties, rents, and bonuses collected from mineral production in the National Petroleum Reserve of Alaska.

Acquired Lands

All royalties, rents, and bonuses for leases issued under the 1947 Mineral Leasing Act for acquired lands are collected by the Minerals Management Service (MMS) on behalf of a number of Federal agencies. The revenues are disbursed as mandated by law.

Royalty revenues from leases within a national forest are distributed as follows: 65 percent to the General Fund of the U.S. Treasury; 25 percent to the State in which the mineral resource is produced; and 10 percent to the Forests, Roads, and Trails Fund.

Royalty revenues from leases within a national grassland are distributed as follows: 65 percent to the General Fund of the U.S. Treasury; 25 percent to the county in which the mineral resource is produced; and 10 percent to the Forests, Roads, and Trails Fund.

Receipts from other acquired lands are deposited in a general Treasury account. The funds, in some instances, revert to the Agency that has administrative jurisdiction over the land.

Indian Lands

Royalties and rents from producing Indian Tribal and allottee lands leases are distributed by MMS to BIA, which in turn makes disbursements to the Tribes and to individual Indian allottees with three notable exceptions. Payments to the Jicarilla Apache, Blackfeet, and Southern Ute Tribes are made directly by the lease payor to financial institutions contracted by the Tribes to receive their mineral payments. The BIA collects rents and bonuses from nonproducing leases.

The Osage Nation manages all mineral leases on its Tribal lands and collects its own revenues.

Military Lands

Royalty revenues collected from military lands leases issued before 1981 are deposited in the General Fund of the U.S. Treasury. Royalty revenue collections for leases issued beginning January 1, 1981, are handled in the same manner as revenues from public lands leases. Royalty revenues from all military lands leases amounted to $44.1 million from 1980-89.

Table 15.--Summary of mineral revenue shares distributed to the States by the Minerals Management Service and the Bureau of Land Management from Federal mineral leases, 1920-89

	State Shares by Fiscal Year in Thousands of Dollars					
	1920-79	1980	1981	1982	1983	1984
Alabama.....	$ 275	$ 38	$ 36	$ 223	$ 550	$ 250
Alaska.....	128,198	2,497	18,865	44,380	15,279	20,906
Arizona.....	6,153	2,005	4,802	4,872	3,017	1,956
Arkansas.....	1,422	236	283	21,614	652	712
California.....	158,492	23,788	24,634	35,440	25,349	49,307
Colorado.....	238,292	21,306	24,939	42,807	38,323	47,049
Florida.....	203	27	165	17	234	207
Idaho.....	12,877	2,895	3,284	5,015	3,344	3,834
Kansas.....	5,112	891	669	1,022	625	823
Louisiana.....	6,565	355	612	617	637	905
Michigan.....	242	32	54	70	41	201
Minnesota*.....	---	---	---	---	1	1
Mississippi.....	239	31	39	7,422	40	538
Montana.....	84,572	9,954	13,110	18,024	20,611	22,295
Nebraska.....	377	184	148	220	169	325
Nevada.....	23,598	7,187	10,291	12,595	10,216	8,484
New Mexico.....	471,578	105,081	128,127	146,813	118,815	131,935
North Dakota....	8,599	4,229	4,094	7,007	9,729	10,464
Ohio*.....	---	---	---	---	---	3
Oklahoma.....	9,083	1,594	2,238	2,211	1,226	2,160
Oregon.....	1,329	306	1,084	4,416	2,975	1,983
South Dakota....	4,522	738	751	1,280	1,157	917
Tennessee*.....	---	---	---	---	8	5
Texas*.....	---	---	---	---	1	9
Utah.....	117,147	17,028	21,391	80,916	32,377	32,084
Virginia.....	---	---	---	---	---	---
Washington.....	258	36	48	583	728	695
West Virginia...	---	---	---	---	---	---
Wisconsin*.....	---	---	---	---	---	---
Wyoming.....	659,558	115,062	119,956	172,096	168,255	204,598
Total.....	**$1,938,691**	**$315,500**	**$379,620**	**$609,660**	**$454,359**	**$542,646**

Table 15.--Summary of mineral revenue shares distributed to the States by the Minerals Management Service and the Bureau of Land Management from Federal mineral leases, 1920-89

State Shares by Fiscal Year in Thousands of Dollars						
1985	1986	1987	1988	1989	1920-89	
$ 200	$ 252	$ 152	$ 89	$ 221	$ 2,286	Alabama
23,937	18,143	13,044	8,042	9,429	302,720	Alaska
1,129	723	529	386	242	25,814	Arizona
718	624	309	517	7,775	34,862	Arkansas
41,833	33,080	27,829	25,526	24,412	469,690	California
42,751	41,847	37,033	31,176	32,616	598,139	Colorado
73	91	28	4	186	1,235	Florida
3,766	2,106	1,364	2,340	1,935	42,760	Idaho
761	874	1,359	929	830	13,895	Kansas
795	555	517	545	452	12,555	Louisiana
44	40	56	173	668	1,621	Michigan
2	3	3	2	---	12	Minnesota
1,073	513	184	104	74	10,257	Mississippi
21,140	17,998	27,407	26,068	19,958	281,137	Montana
320	269	170	156	115	2,453	Nebraska
9,903	7,020	5,136	6,266	9,287	109,983	Nevada
149,878	107,313	75,478	91,698	88,306	1,615,022	New Mexico
9,482	7,441	6,814	5,738	4,985	78,582	North Dakota
---	---	---	---	5	8	Ohio*
2,916	2,575	1,596	1,621	1,912	29,132	Oklahoma
1,761	1,213	687	565	291	16,610	Oregon
1,227	985	905	822	669	13,973	South Dakota
---	---	---	---	---	13	Tennessee*
11	9	7	8	5	50	Texas*
34,771	27,574	24,235	30,624	53,035	471,182	Utah
---	---	18	18	20	56	Virginia
640	326	280	232	208	4,034	Washington
28	---	---	---	---	28	West Virginia
---	---	1	1	---	2	Wisconsin*
199,778	152,872	151,889	163,908	175,786	2,283,758	Wyoming
$548,937	**$424,446**	**$377,030**	**$397,558**	**$433,422**	**$6,421,869**	**Total**

*Cumulative totals for these and certain other States may not include some small revenue shares that were disbursed during the previous decades.

NOTE: Numbers represent actual payments to the States and not allocations. Mandated distributions to the States are based on percentage shares in royalties, bonuses, and other mineral revenue collections. Interest accrued for late disbursements to the States is included in the 1986-89 shares.

SOURCES: Minerals Management Service records and Bureau of Land Management Public Land Statistics.

Table 16.--Summary of distribution of mineral revenue shares to other Federal Agencies from acquired lands, 1985-89

	Agency Shares by Fiscal Year					
	1985	1986	1987	1988	1989	1985-89
U.S. Army Corps of Engineers.....	$ 2,563,572	$ 2,470,295	$ 1,313,384	$ 621,309	$ 2,002,190	$ 8,970,750
U.S. Department of Agriculture.....	73,531,777	39,694,197	47,591,946	44,717,622	91,939,261	297,474,803
Total.....	**$76,095,349**	**$42,164,492**	**$48,905,330**	**$45,338,931**	**$93,941,451**	**$306,445,553**

NOTE: The distribution of mineral revenue shares to the States from acquired lands is made by the U.S. Army Corps of Engineers and the U.S. Department of Agriculture.

Computer tape library at RMP headquarters in Lakewood, Colorado, contains 29,815 active tapes with over 85 billion bytes of information.

Table 17.--Distribution of OCS royalties, rents, bonuses, escrow funds, and settlement payments under the provisions of the OCS Lands Act Amendments of 1985, Public Law 99-272, 1986-89

	State Shares by Fiscal Year				
	1986	1987	1988	1989	1986-89
Alabama.....	$ 66,182,540	$ 276,188	$ 280,646	$ 617,057	$ 67,356,431
Alaska.....	51,438,090	4,420,730	329,000,637	4,467,428	389,326,885
California.....	338,217,446	9,428,815	10,918,562	10,803,697	369,368,520
Florida.....	30,000	---	419	296,309	326,728
Louisiana.....	---	657,561,717	16,909,646	12,749,220	687,220,583
Mississippi.....	14,012,017	76,200	74,194	79,579	14,241,990
Texas.....	427,606,860	10,018,879	12,878,858	17,836,464	468,341,061
Total.....	**$897,486,953**	**$681,782,529**	**$370,062,962**	**$46,849,754**	**$1,996,182,198**

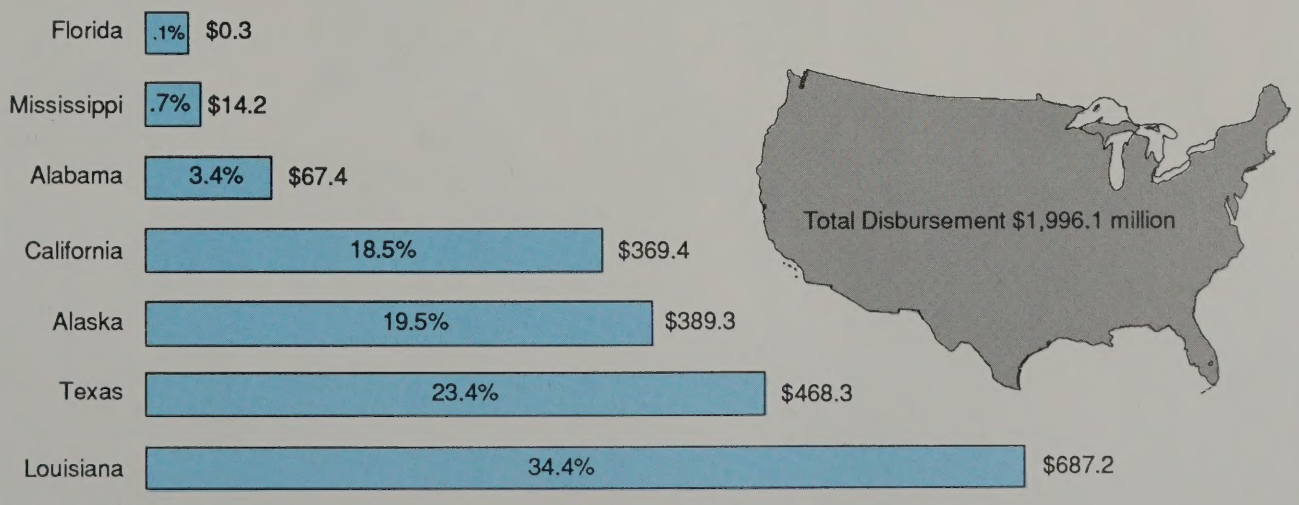


Figure 22. --- Disbursement to States of OCS royalties, rents, bonuses, escrow funds, and settlement payments, in millions, under the provisions of the OCS Lands Act Amendments of 1985, Fiscal Years 1986-89

ROCKWELL
NORDSTROM

Royalty-In-Kind

Under the Mineral Lands Leasing Act of 1920 and the Outer Continental Shelf Lands Act of 1953, the Federal Government, as lessor, may take part or all of its oil and gas royalties "in kind." The Secretary of the Interior, exercising discretionary authority, has historically determined that certain oil refiners do not have access to a secure supply of crude. The Federal Government may direct Federal lessees to pay their royalty shares in crude oil, rather than "in value" as cash. The Government, in turn, sells the royalty-in-kind (RIK) oil at fair market value to eligible refiners. Contracts with these refiners are ordinarily made for a period of 3 years.

Participation in both the onshore and offshore RIK program reached an apex in 1981 when total RIK royalty value exceeded $1 billion. Interest in the program corresponded with record oil prices of $35 to $38 per barrel during the period. The RIK crude royalty value equaled 43.9 percent of the nearly $2.3 billion in oil royalties paid to the Federal Government in that year (tables 2 and 18).

The worldwide reduction in oil prices in 1986 and the attendant availability of low-priced crude oil on the open market eroded interest in the RIK program. Thirty contractors participated in the program at the beginning of the year; however, only two offshore contractors remained in the program at year's end. Less than 3 million barrels were sold during the year, with a royalty value of $40.4 million. The royalty value represented 3 percent of the $1.3 billion in oil royalties paid to the Government during the year (tables 2 and 18).

Interest in the RIK program grew at a modest level over the next 3 years as oil prices rebounded from an annualized average low of $16.44 per barrel in 1986 to an average of $18.29 per barrel in 1989. Four onshore contractors joined two existing offshore contractors through a RIK lease sale conducted in 1987. The six contractors continued in the program through the end of the decade. RIK royalty value equaled 9.3 percent of the $1.1 billion in oil royalties paid to the Government in 1989 (tables 2 and 18).

Table 18.--Summary of Royalty-In-Kind oil taken as royalty payments for Federal mineral lease production, 1976-89

	Onshore RIK Oil		Offshore RIK Oil		Total RIK	
	Barrels Sold	Royalty Value	Barrels Sold	Royalty Value	Barrels Sold	Royalty Value
1976-79.....	45,009,893	$ 371,148,985	109,443,406	$1,000,428,731	154,453,299	$1,371,577,716
1980.....	9,883,818	199,149,683	26,243,154	490,562,695	36,126,972	689,712,378
1981.....	7,498,508	240,535,887	22,086,347	761,461,463	29,584,855	1,001,997,350
1982.....	4,903,877	130,817,540	12,393,000	361,201,000	17,296,877	492,018,540
1983.....	6,912,354	191,886,947	6,582,569	185,891,749	13,494,923	377,778,696
1984.....	7,750,000	217,132,000	19,170,000	575,115,000	26,920,000	792,247,000
1985.....	4,498,065	115,855,987	5,967,887	156,212,497	10,465,952	272,068,484
1986.....	1,528,842	21,385,284	1,432,418	19,023,331	2,961,260	40,408,615
1987.....	4,820,893	82,969,264	920,306	10,780,105	5,741,199	93,749,369
1988.....	6,928,986	94,314,227	861,027	7,951,951	7,790,013	102,266,178
1989.....	6,021,694	95,241,410	820,300	9,295,589	6,841,994	104,536,999
1976-89.....	105,756,930	$1,760,437,214	205,920,414	$3,577,924,111	311,677,344	$5,338,361,325

Workers perform maintenance at oil and gas refinery. (Photo courtesy Phillips Petroleum Company.)

Lease Management

Oil and Gas Leases

There were 17,959 producing and producible Federal and Indian oil and gas leases on nearly 14 million acres as of December 31, 1980. Over the next 9 years, the number of producing and producible oil and gas leases increased 37.2 percent, or 6,681 leases, to 24,640 leases at the end of 1989. The number of leases peaked at 24,954 leases in 1987, before experiencing a modest decline over the next 2 years to the 24,640 lease figure at the end of the decade. The amount of acreage under production or capable of production rose 45.5 percent, or 6.4 million acres, to 20.3 million acres during the 9-year period (table 19 and figure 23).

The number of oil and gas leases on the Outer Continental Shelf (OCS) rose 44.5 percent, from 1,168 leases at the end of 1980 to 1,688 leases at the end of 1989 (table 19 and figure 23). The amount of acreage in production or capable of production on the OCS rose at a corresponding 49 percent, from 5.3 million acres at the end of 1980 to nearly 7.9 million acres at the end of 1989 (table 19 and figure 23).

Federal onshore oil and gas leases rose at a consistent level over the decade. The number of leases increased 40.5 percent, from 13,332 leases at the end of 1980 to 18,729 leases at the end of 1989. The amount of acreage in production or capable of production peaked in 1986 at over 11 million acres. The acreage declined over the next 3 years to a level of 10.9 million acres in 1989. This produced a net increase of 3.4 million acres, or 45.1 percent, over the 9-year period (table 19 and figure 23).

The number of Indian oil and gas leases rose over a 7-year period to 4,819 leases at the end of 1987. The number of leases declined in the following 2 years to close the decade at 4,223 leases. This produced a net increase of 764 leases on 381,215 additional acres during the 9-year period (table 19 and figure 23).

Coal Leases

The number of producing Federal and Indian coal leases rose 24.1 percent, from 108 leases at the end of 1980 to 134 leases at the end of 1989. The amount of acreage in production increased 47.5 percent, from 265,918 acres at the end of 1980 to 392,116 acres at the end of 1989. A net gain of 23 coal leases on Federal lands increased the amount of acreage in production from 150,288 acres at the end of 1980 to 235,975 acres at the end of 1989. A corresponding gain of 3 Indian coal leases increased the amount of acreage in production on Tribal lands from 115,630 acres at the end of 1980 to 156,141 acres at the end of 1989 (table 20).

Other Mineral Leases

The number of other types of onshore mineral leases and the amount of acreage in production rose and fell during the decade due to changes in supply and demand for products including geothermal, hot water, lead, phosphate, potash, sodium, and uranium. The net total of other types of onshore producing mineral leases on Federal and Indian lands rose 58.1 percent, from 136 leases at the end of 1980 to 215 leases at the end of 1989. The net acreage in production increased 123 percent, from 157,266 acres in 1980 to 350,723 acres in 1989 (table 21 and figure 24).

There was a net increase of 84 producing leases on 207,976 additional acres on Federal lands during the period. The increase was primarily attributed to the addition of 50 new sodium leases on 126,191 acres in Utah in 1989. There was a net reduction of 5 producing leases and 14,519 acres on Indian lands from the end of 1980 to the end of 1989 (table 21 and figure 24). The decline is the result of the termination of a number of uranium leases on approximately 14,100 acres in New Mexico during the decade.

There were 135,543 mineral leases, licenses, permits, and applications on Federal and Indian onshore lands administered by the Department of the Interior at the end of 1980. The figure rose at a moderate pace through the end of 1983 and then fell to a level of 93,534 documents at the end of 1989. Oil and gas documents experienced a corresponding increase through 1983 and then declined to 91,263 documents at the end of 1989 (table 23). The total number of leases rose during the decade; however, the number of licenses, permits, and applications declined during the same period (tables 19, 20, 21, and 23).

Petroleum engineer analyzes core samples.
(Photo courtesy Phillips Petroleum Company.)

Table 19.--Producing and producible Federal offshore and Federal and Indian onshore oil & gas leases as of December 31, 1980-89

	No.	Acres		No.	Acres
1980			**1985**		
Offshore Federal.....	1,168	5,299,871	Offshore Federal.....	1,514	6,965,316
Onshore Federal.....	13,332	7,496,066	Onshore Federal.....	17,818	10,996,850
Indian.....	3,459	1,183,908	Indian.....	4,601	1,842,803
Total.....	**17,959**	**13,979,845**	**Total.....**	**23,933**	**19,804,969**
1981			**1986**		
Offshore Federal.....	1,218	5,447,556	Offshore Federal.....	1,536	7,131,041
Onshore Federal.....	14,199	8,225,900	Onshore Federal.....	18,381	11,009,329
Indian.....	3,563	1,287,144	Indian.....	4,701	1,647,920
Total.....	**18,980**	**14,960,600**	**Total.....**	**24,618**	**19,788,290**
1982			**1987**		
Offshore Federal.....	1,300	5,879,977	Offshore Federal.....	1,596	7,415,149
Onshore Federal.....	15,048	9,208,010	Onshore Federal.....	18,539	11,000,487
Indian.....	3,778	1,222,699	Indian.....	4,819	1,625,772
Total.....	**20,126**	**16,310,686**	**Total.....**	**24,954**	**20,041,408**
1983			**1988**		
Offshore Federal.....	1,381	6,279,353	Offshore Federal.....	1,647	7,691,964
Onshore Federal.....	15,471	9,448,364	Onshore Federal.....	18,697	10,991,646
Indian.....	3,865	1,236,562	Indian.....	4,349	1,600,469
Total.....	**20,717**	**16,964,279**	**Total.....**	**24,693**	**20,284,079**
1984			**1989**		
Offshore Federal.....	1,466	6,693,471	Offshore Federal.....	1,688	7,896,055
Onshore Federal.....	16,760	10,219,610	Onshore Federal.....	18,729	10,874,641
Indian.....	4,392	1,594,148	Indian.....	4,223	1,565,123
Total.....	**22,618**	**18,507,229**	**Total.....**	**24,640**	**20,335,819**

Table 20.--Producing Federal and Indian onshore coal leases as of December 31, 1980-89

	Federal		Indian		Total	
	No.	Acres	No.	Acres	No.	Acres
1980	103	150,288	5	115,630	108	265,918
1981	109	159,043	5	115,630	114	274,673
1982	108	185,946	6	155,918	114	341,864
1983	103	174,358	6	155,918	109	330,276
1984	118	188,594	6	155,918	124	344,512
1985	127	223,830	7	195,918	134	419,748
1986	118	227,484	6	155,630	124	383,114
1987	121	213,993	7	195,918	128	409,911
1988	119	224,579	7	155,918	126	380,497
1989	126	235,975	8	156,141	134	392,116

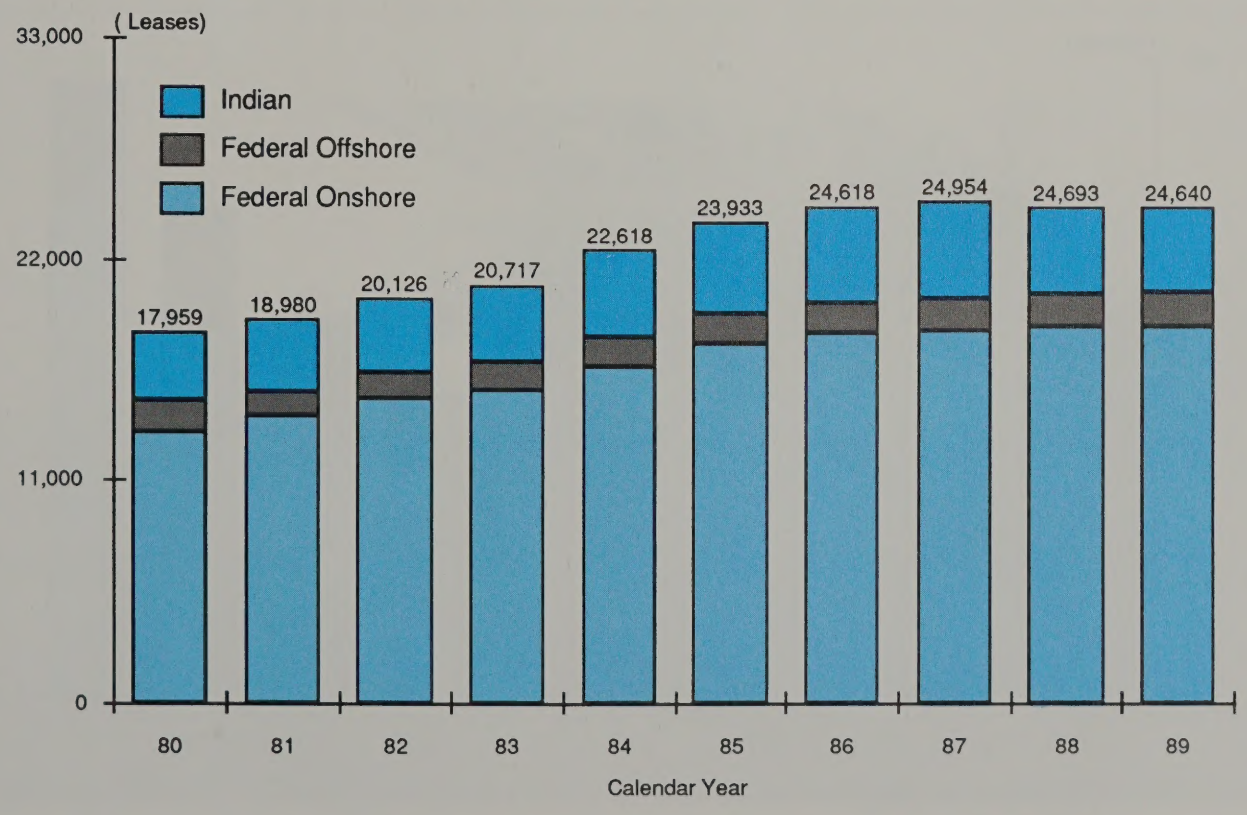


Figure 23. --- Producing and producible Federal offshore, and Federal and Indian onshore oil and gas leases, 1980-89

Table 21.--Producing Federal and Indian onshore leases of other minerals as of December 31, 1980-89

	Federal		Indian		Total	
	No.	Acres	No.	Acres	No.	Acres
1980	89	128,183	47	29,083	136	157,266
1981	133	191,555	46	28,464	179	220,019
1982	114	181,442	33	23,485	147	204,927
1983	107	161,679	36	19,242	143	180,921
1984	118	163,603	16	10,468	134	174,071
1985	113	212,092	41	14,248	154	226,340
1986	80	149,586	28	17,915	108	167,501
1987	102	177,996	32	17,938	134	195,934
1988	128	210,942	43	19,267	171	230,209
1989	173	336,159	42	14,564	215	350,723

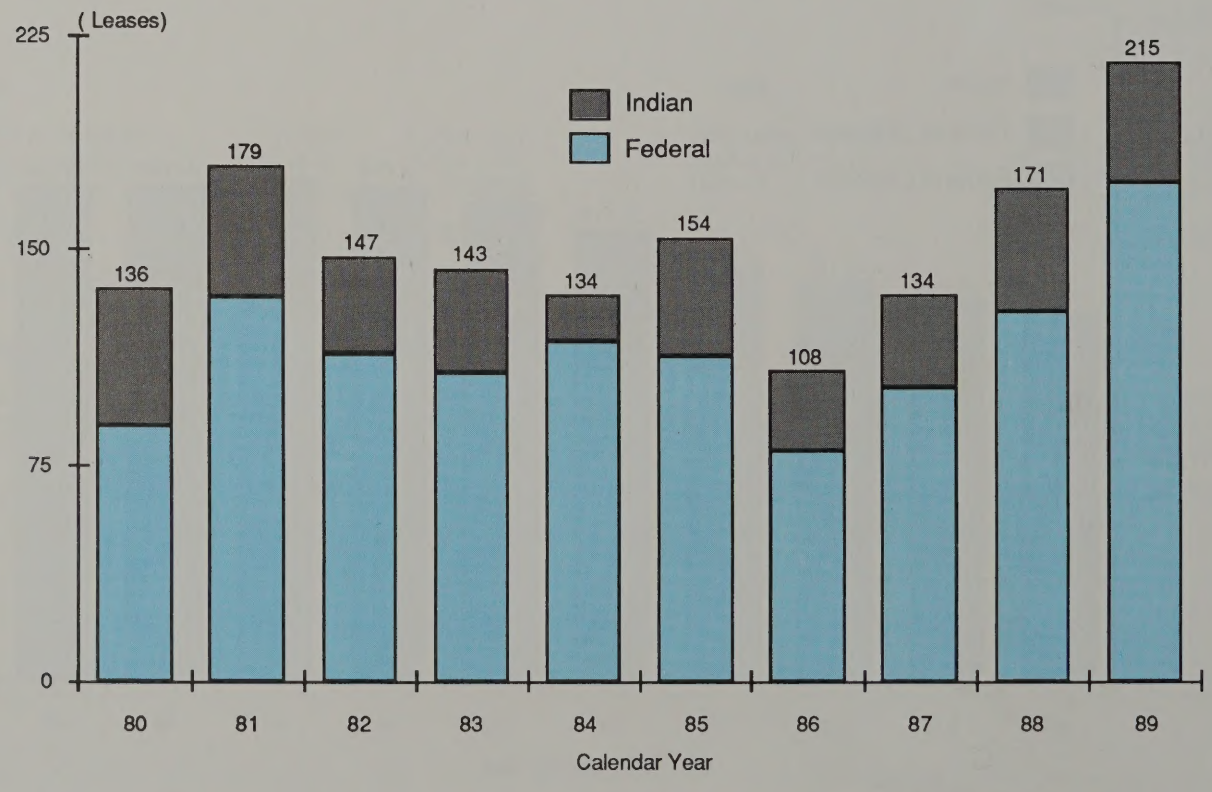


Figure 24. --- Producing Federal and Indian onshore leases of other minerals, 1980-89

Table 22.--Summary by area of oil & gas and other mineral leases, licenses, and permits under the supervision of the Department of the Interior on the OCS, as of December 31, 1980-89

	Federal Leases Offshore					
	Oil & Gas		Other		Total Offshore	
	No.	Acres	No.	Acres	No.	Acres
1980	2,254	10,729,762	2	4,995	2,256	10,734,757
1981	2,573	12,270,134	2	4,995	2,575	12,275,129
1982	2,694	12,562,199	2	4,995	2,696	12,567,194
1983	3,787	18,523,110	2	4,995	3,789	18,528,105
1984	5,017	25,110,274	7	11,945	5,024	25,122,219
1985	5,197	26,000,951	7	11,948	5,204	26,012,899
1986	5,068	25,426,299	7	11,948	5,075	25,438,247
1987	5,185	26,079,332	7	11,948	5,192	26,091,280
1988	5,801	29,434,977	17	148,774	5,818	29,583,751
1989	6,498	33,273,059	17	148,774	6,515	33,421,833

Offshore oil production platform.
(Photo courtesy Amoco Corporation.)

Table 23.--Summary of oil & gas and other mineral leases, licenses, permits, and applications under the supervision of the Department of the Interior on Federal and Indian onshore lands, as of December 31, 1980-89

	Oil & Gas Supervision Onshore						Total Oil & Gas Supervision Onshore	
	Public		Acquired		Indian			
	No.	Acres	No.	Acres	No.	Acres	No.	Acres
1980.....	105,196	100,116,532	12,622	8,757,889	14,320	3,673,241	132,138	112,547,662
1981.....	110,162	120,693,631	12,773	9,141,627	16,224	3,975,603	139,159	133,810,861
1982.....	115,561	150,752,220	14,603	11,360,114	15,201	4,050,049	145,365	166,162,383
1983.....	119,502	151,987,107	14,573	11,647,165	14,391	3,681,536	148,466	167,315,808
1984.....	110,615	122,886,849	11,820	10,140,919	16,087	4,301,412	138,522	137,329,180
1985.....	106,067	110,906,100	10,888	9,766,621	14,493	4,449,393	131,448	125,122,114
1986.....	92,773	84,648,979	10,112	8,081,804	11,884	3,840,956	114,769	96,571,739
1987.....	78,755	64,606,541	8,813	6,597,216	11,047	3,524,758	98,615	74,728,515
1988.....	72,764	60,928,819	8,064	5,946,917	9,696	3,447,994	90,524	70,323,730
1989.....	73,266	61,469,693	8,878	6,210,647	9,119	3,587,979	91,263	71,268,319

Source: Data from Bureau of Land Management and Minerals Management Service records.

Table 23.--Summary of oil & gas and other mineral leases, licenses, permits, and applications under the supervision of the Department of the Interior on Federal and Indian onshore lands, as of December 31, 1980-89

Other Minerals Supervision Onshore						Total "Other" Supervision Onshore		Total Fluid & Solid Minerals Under Supervision Onshore		
Public		Acquired		Indian						
No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	
2,572	4,083,997	269	261,644	564	9,908,778	3,405	14,254,419	135,543	126,802,081	1980
2,866	4,582,507	268	285,284	635	1,231,061	3,769	6,098,852	142,928	139,909,713	1981
3,191	5,170,098	259	270,390	547	717,650	3,997	6,158,138	149,362	172,320,521	1982
2,932	4,966,337	455	531,449	425	684,147	3,812	6,181,933	152,278	173,497,741	1983
2,833	4,768,663	352	356,083	392	926,328	3,577	6,051,074	142,099	143,380,254	1984
1,662	2,729,757	202	230,458	301	240,003	2,165	3,200,218	133,613	128,322,332	1985
2,547	4,060,011	276	270,007	263	236,030	3,086	4,566,048	117,855	101,137,787	1986
2,125	3,243,214	245	220,154	275	240,285	2,645	3,703,653	101,260	78,432,168	1987
1,953	3,000,797	218	205,157	281	235,135	2,452	3,441,089	92,976	73,764,819	1988
1,775	2,647,295	179	174,403	317	454,472	2,271	3,276,170	93,534	74,544,489	1989

Table 24.--General Federal and Indian mineral lease terms under the Mineral Lands Leasing Act of February 25, 1920, as amended

	Oil & Gas Leases/Federal Offshore Lands				
	Customary Royalty Rate	Annual Rental & Other Fees	Duration of Lease	Size of Lease	Bonding Requirements
OCS Lease	12-1/2% and 16-2/3% on production. Net profit sharing or sliding scale from 12-1/2% to 65%, flat rates of 33-1/3% and above.	$3 per acre: $3 per acre minimum royalty after discovery; $10 per acre for drainage sales; $10 per acre minimum royalty for drainage sales.	5 years (not to exceed 10 years). Continued if capable of producing in commercial quantities.	5,000 acres unless a larger area is needed for a production unit.	Lease: $50,000. Area: $300,000.

	Oil & Gas Leases/Federal Onshore Lands				
	Customary Royalty Rate	Annual Rental & Other Fees	Duration of Lease	Size of Lease	Bonding Requirements
Competitive Lease	Prior to 12-23-87: oil 12-1/2% to 25%, and gas 12-1/2% or 16-2/3%, depending on production per well per day for the calendar month. Leases after 12-22-87: flat rate of 12-1/2%.	Rental $1.50 and $2 per acre; $1 per acre minimum royalty after discovery. Leases after 12-22-87: minimum royalty cannot be less than rental requirement.	5 years; continued if capable of producing in commercial quantities.	640 acres or less.	Lease: $10,000. State: $25,000. Nationwide: $150,000.
Non-Competitive Lease	12-1/2% on production.	Rental $.50 or $1 per acre. $2 per acre if later classified as a known geologic structure. Leases after 12-22-87: $2 per acre for 6-10 years for simultaneous leasing; $1 per acre minimum royalty after discovery; $75 filing fee per lease. Minimum royalty cannot be less than rental requirement.	10 years; continued if capable of producing in commercial quantities.	10,240 acres maximum within 6-mile square, or 640 acres minimum.	Lease: $10,000. State: $25,000. Nationwide: $150,000.

Table 24.--General Federal and Indian mineral lease terms under the Mineral Lands Leasing Act of February 25, 1920, as amended

	Oil & Gas Leases/Federal Onshore Lands (cont.)				
	Customary Royalty Rate	Annual Rental & Other Fees	Duration of Lease	Size of Lease	Bonding Requirements
National Petroleum Reserve in Alaska Lease (Subject to Appropriation Act of 1981)	Not set by law--now 16-2/3%.	$3 per acre.	10 years or less.	Up to 60,000 acres.	Corporate Surety--$100,000.

	Oil & Gas Leases/Indian Lands				
	Customary Royalty Rate	Annual Rental & Other Fees	Duration of Lease	Size of Lease	Bonding Requirements
Indian Lease	Varied. Generally, new leases provide for 20% or more on production. Older leases are generally 12-1/2% or 16-2/3%.	Varied. Amounts range from $1.25 per acre to $30 per acre. Rents may or may not be recoupable against royalties.	Generally the primary term is 5 years or less.	Varied. Range from fraction of an acre to over 200,000 acres.	Lease: $500 to $2,000 depending on acreage. Nationwide: $75,000.

	Coal Leases/Federal Lands				
	Customary Royalty Rate	Annual Rental & Other Fees	Duration of Lease	Size of Lease	Bonding Requirements
Lease Sold Before August 4, 1976	$.15 ton underground; $.175 ton surface mines.	$1 per acre credited against royalty payments for the lease year; minimum royalty payments per lease terms.	Indefinite period with 20-year readjustments.	Not more than 46,080 acres in one State & no more than 100,000 acres in U.S. for one or more leases.	Nonproducing leases: $5,000 or amount equal to annual rent rounded to $1,000, whichever is greater. Producing leases: 3 months' production royalty.

Table 24.--General Federal and Indian mineral lease terms under the Mineral Lands Leasing Act of February 25, 1920, as amended (cont.)

	Coal Leases/Federal Lands (cont.)				
	Customary Royalty Rate	Annual Rental & Other Fees	Duration of Lease	Size of Lease	Bonding Requirements
Lease Sold After August 3, 1976	Readjusted & new leases: 8% of value underground; 12-1/2% of value at surface.	$3 per acre not credited against royalty payments. $250 lease filing fee. $50 transfer fee.	20 years; continued if producing in commercial quantities, subject to readjustment every 10 years.	Not more than 46,080 acres in one State & no more than 100,000 acres in U.S. for one or more leases.	Nonproducing leases: $5,000 or amount equal to annual rent rounded to $1,000, whichever is greater. Producing leases: 3 months' production royalty.

	Coal Leases/Indian Lands				
	Customary Royalty Rate	Annual Rental & Other Fees	Duration of Lease	Size of Lease	Bonding Requirements
Indian Lease	Varies according to lease terms and amendments. Generally 6% to 12%.	Varied. Average rental rate per acre is $2. Advance royalty payable up to $1 million annually.	Varies by lease terms.	Varied.	Lease: $500 to $2,000, depending on acreage. State: $75,000 depending on acreage. Nationwide: $75,000 or as determined by the Secretary.

	Other Mineral Leases/Federal Lands				
	Customary Royalty Rate	Annual Rental & Other Fees	Duration of Lease	Size of Lease	Bonding Requirements
Geothermal Lease	10% to 15% of value of steam & not less than 5% of value of demineralized water; "by-products" royalty rate determined by particular mineral as specified in the Geothermal Steam Act, 1970 30 U.S.C. 1001-1025.	$1 per acre; $2 per acre in known geothermal resources area.	10 years; continued if capable of producing in commercial quantities.	2,560 acres & not less than 640 acres unless for nonelectrical uses.	Lease: $10,000. State: $50,000. Nationwide: $150,000. $5,000 minimum for protection of surface owner.

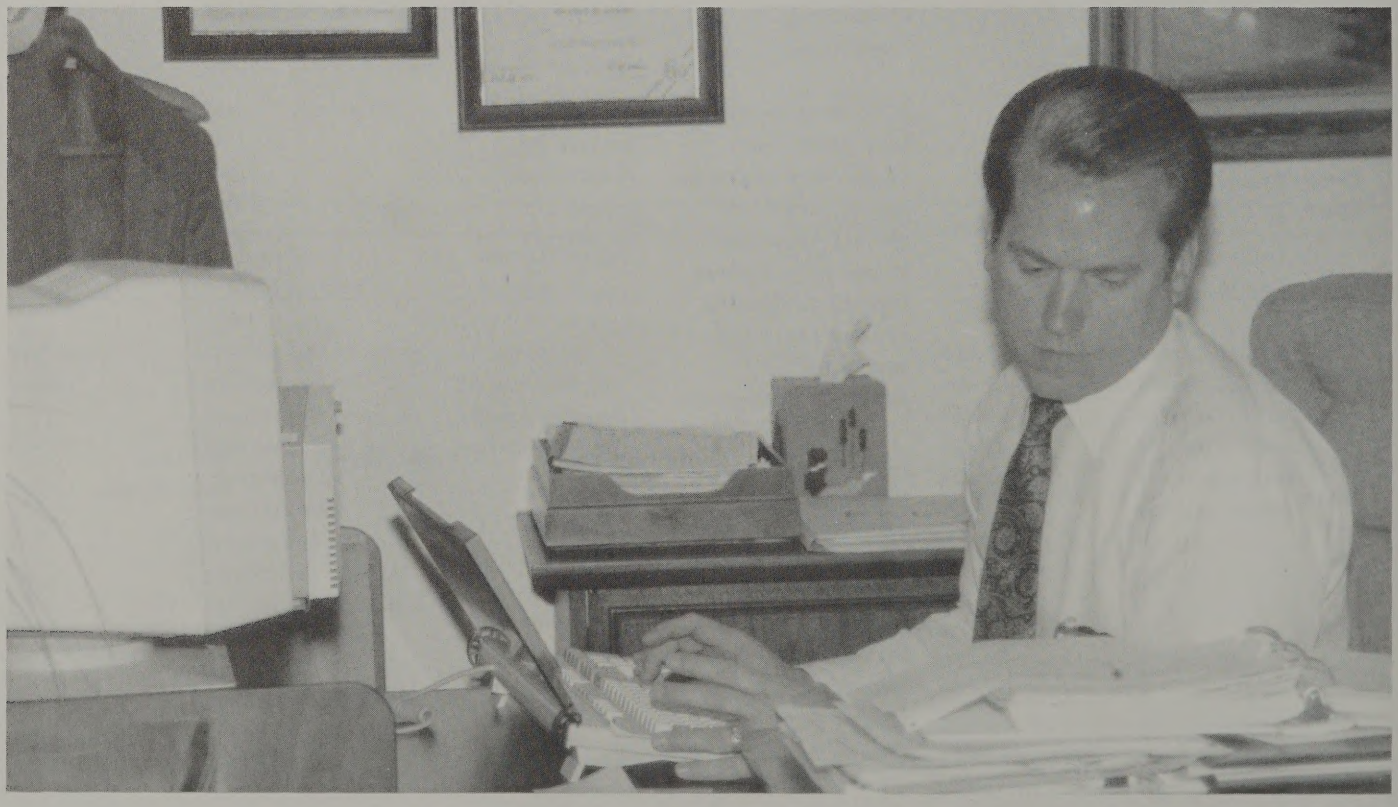
Table 24.--General Federal and Indian mineral lease terms under the Mineral Lands Leasing Act of February 25, 1920, as amended (cont.)

	Other Mineral Leases/Federal Lands (cont.)				
	Customary Royalty Rate	Annual Rental & Other Fees	Duration of Lease	Size of Lease	Bonding Requirements
Gilsonite Lease	Per lease terms.	$.50 per acre credited against royalties. $3 per acre minimum royalty payable in advance beginning year 6, until production commences.	20 years, subject to readjustment every 20 years.	Per lease terms.	Not less than $5,000.
Lead, Zinc, or Iron Lease & Other Solid & Hardrock Minerals	Average 5% of value.	$1 per acre credited against royalties. $3 per acre minimum royalty payable in advance beginning year 6, until production commences.	20 years with right for renewal every 10 years thereafter.	2,560 acres.	Not less than $5,000.
Oil Shale Lease	Per lease terms.	$.50 per acre. Minimum royalty per lease terms.	Per lease terms.	Per lease terms.	Per lease terms.
Potassium, Sodium, or Phospahte Lease	Average 5% of value.	$.25 first year; $.50 years 2-5; $1 per acre beginning year 6, credited against royalties. $3 per acre minimum royalty payable in advance beginning year 6, until production commences.	Indefinite, subject to readjustment every 20 years.	2,560 acres.	Lease: Not less than $5,000. State: $25,000. Nationwide: $75,000
Sulfur Lease	Not less than 5% of value.	$.50 per acre credited against royalties. $3 per acre minimum royalty payable in advance beginning year 6, until production commences.	20 years, with right for renewal every 10 years thereafter.	640 acres.	Not less than $5,000.

Table 24.--General Federal and Indian mineral lease terms under the Mineral Lands Leasing Act of February 25, 1920, as amended (cont.)

	Other Mineral Leases/Indian Lands				
	Customary Royalty Rate	Annual Rental & Other Fees	Duration of Lease	Size of Lease	Bonding Requirements
Copper, Gold Lead, Silver, Tungsten, Zinc and Other Ores and Metals	Varies by commodity and lease terms. Ranges from $.29 per unit to $.75 per unit and from 10% to 22-1/2%.	Varies from $1 per acre to $5 per acre. Flat amount of rental or advance royalty due regardless of lease size. Can range from $2,000 to $1.2 million annually.	Varies by lease from 1 year to 20 years.	1 acre to 40,000 acres.	Lease: As Determined. State: $15,000. Nationwide: $75,000.

NOTE: Lease terms may be extended or modified for various reasons as authorized by regulation. A $10 fee is required to file, transfer, or assign an Indian lease. A comparable fee is required to file, transfer, or assign certain other lease commodities.



Employee in RMP Fiscal Accounting Division ensures that mineral revenue payments are distributed to the appropriate recipient.

Glossary

AFS --- Auditing and Financial System. A computer system application operated by the Minerals Management Service for the collection and disbursement of royalties and rents from producing leases on Federal and Indian lands.

Allocation of Receipts --- Determination of revenues to be paid to funds, counties, States, or Indian Tribes from receipts collected during the fiscal year as required by law.

Application --- A formal request for rights to public lands or resources or for the eventual title to those lands or resources.

Assistant Secretary --- Assistant Secretary - Land and Minerals Management. Serves under the Secretary of the Interior. Exercises Secretarial direction and supervision over the Bureau of Land Management, the Minerals Management Service, and the Office of Surface Mining Reclamation and Enforcement.

Barrel/bbl --- A measure of volume for petroleum products. One barrel is equivalent to 42 U.S. gallons or .15899 cubic metres. One cubic metre equals 6.2897 barrels.

BIA --- Bureau of Indian Affairs. A Federal Agency within the Department of the Interior, responsible for facilitating the full development of the human and natural resource potential of Indian and Alaskan native people to manage their own affairs under a trust relationship with the Federal Government.

BLM --- Bureau of Land Management. A Federal Agency within the Department of the Interior that administers public lands and natural resources. Bureau programs provide for the protection, orderly development, and use of the public lands and resources under principles of multiple use and sustained yield.

Bonus --- The cash consideration paid to the United States by the successful bidder for a mineral lease. The payment is made in addition to the rent and royalty obligations specified in the lease.

BRASS --- Bonus and Rental Accounting Support System. A computer system application operated by the Minerals Management Service for the collection and disbursement of rents and bonuses for nonproducing leases on Federal lands.

Btu --- British Thermal Unit. The amount of energy required to heat the temperature of 1 pound of water 1 degree Fahrenheit at or near 39.2 degrees Fahrenheit. An average Btu content of fuel is a heat value per unit quantity of fuel as determined from tests of fuel samples.

Competitive Leasing --- Leases are issued by the United States where there are known mineral deposits or where inference of probable mineralization may be derived from knowledge of the geology of the land. The lands are offered for lease by competitive bidding following publication of the offer of the lands for lease. The lease is issued to the highest bidder at a sale by public auction. (See also noncompetitive leasing).

Department --- Department of the Interior. A cabinet-level Department in the Executive Branch of the Federal Government responsible for the administration of most of the nationally owned public lands and natural resources. The Department is further responsible for American Indian reservation communities and for individuals who live in Island Territories under U.S. administration.

Director --- Director, Minerals Management Service.

Effective Date --- The date a lease or assignment becomes effective. For a lease, the first day of the month after the issue date or, upon applicant request, the first day of the month of issuance. For an assignment, the first day of the month after proper filing of all required documents.

EOP --- Explanation of Payment. A series of reports mailed twice monthly to Indians and allottees, and monthly to States, addressing the source and nature of mineral revenue disbursements.

Federal Land --- All classes of land owned by the Federal Government, including public, acquired, and military lands.

FOGRMA --- Federal Oil and Gas Royalty Management Act of 1982. Public Law 97-451, enacted by Congress and signed into law by the President to ensure that all oil and gas originating from Federal and Indian lands and on the Outer Continental Shelf are properly accounted for under the direction of the Secretary of the Interior.

FY --- Fiscal Year. A period of time used for accounting purposes. The Federal Government recognizes a fiscal year that extends from October 1 of one year to September 30 of the following year.

Gas Plant Products --- Natural gas liquids recovered from natural gas processing plants, and in some situations, from natural gas field facilities, as well as those that are extracted by fractionators. Gas plant products are classified as follows: ethane, propane, normal butane, isobutane, pentane plus, and other finished petroleum products produced at natural gas processing plants including finished motor gasoline, finished aviation gasoline, special napthas, kerosene, distillate fuel oil, and miscellaneous products.

Geothermal Energy --- Hot water or steam, extracted from geothermal reservoirs in the earth's crust, which is supplied to steam turbines at electric utilities that drive generators to produce electricity, or which is fed through a system of pipes to provide radiation heating for agricultural purposes including hothouses.

Hydroelectric Power --- Electricity generated by an electric plant whose turbines are driven by falling water.

IBLA --- Interior Board of Land Appeals. Serves as the representative of the Secretary of the Interior, with authority to hear appeals from decisions of the Director, Minerals Management Service, concerning computation and collection of royalties on Federal and Indian mineral leases. In addition, serves as the Secretary's designate to decide appeals from decisions of officers of the Bureau of Land Management concerning the public lands and mineral resources, and from decisions of officers of the Office of Surface Mining Reclamation and Enforcement and of Departmental Administrative Law Judges concerning regulation of surface coal mining activities.

IITA --- Initiative for Indian Tribes and Allottees. An initiative developed by Minerals Management Service Director Barry A. Williamson to improve royalty management services to the Indian community. A task force was assembled by the Director to evaluate concerns expressed by the Special Committee on Investigations of the Senate Select Committee on Indian Affairs.

Improvements Plan --- Strategic Plan for Systems Improvements. The Plan, developed by the Minerals Management Service, identifies major systems and program improvements to facilitate achievement of the Royalty Management Program mission.

Indian Allotment --- An allocation of a parcel of public lands or Indian reservation lands to an Indian for individual use. Revenue from mineral production may vest with the individual Indian allottee.

Indian Lease Audit Strategy --- A program developed by the Minerals Management Service and the Bureau of Indian Affairs to address the audit requirements of Indian Tribes and allottees.

Lease --- A legal document executed between a landowner, as lessor, and a company or individual, as lessee, that conveys the right to exploit the premises for minerals or other products.

License --- An authority granted by the United States to perform a particular act or series of acts upon public lands without the licensee possessing any estate or interest in the land itself.

MAP --- Management Action Plan. A Department of the Interior program which identifies 42 actions to resolve problems and facilitate accomplishment of the Royalty Management Program mission.

Mcf --- Thousand cubic feet.

Mineral --- A naturally occurring organic or inorganic homogeneous substance with characteristics and economic uses that bring it within the purview of mineral laws. A substance that may be obtained under applicable laws from public lands by purchase, lease, or preemptive entry.

Mineral Permit --- A permit that authorizes prospecting for certain leasable minerals on public lands described in the permit.

Minimum Royalty --- A payment made annually on a per-acre basis to validate a lease in lieu of drilling.

MMS --- Minerals Management Service. A Federal Agency within the Department of the Interior that administers the Royalty Management Program and the

Offshore Minerals Management Program. The Royalty Management Program is responsible for the accurate and timely determination, collection, and distribution of royalties from Federal and Indian lands and bonuses and rents from Federal Lands. The Offshore Minerals Management Program is responsible for offshore leasing and associated functions.

Noncompetitive Leasing --- Leases issued to qualified applicants for land not specifically known or presumed to contain mineral or petroleum deposits in quantity. (See also competitive leasing).

Nuclear Energy --- Electricity produced by an electric power plant whose turbines are driven by steam generated in a reactor from heat from the fissioning of nuclear fuel.

OCS --- Outer Continental Shelf. All submerged lands laying seaward and outside of the area of lands beneath navigable waters. Lands beneath navigable waters are interpreted as extending from the coastline no more than 3 nautical miles into the Atlantic Ocean, the Pacific Ocean, and the Gulf of Mexico excluding the coastal waters off Texas and western Florida. Lands beneath navigable waters are interpreted as extending from the coastline no more than 3 marine leagues into the Gulf of Mexico off Texas and western Florida.

Offshore Minerals Management Program --- See Minerals Management Service.

OPEC --- Organization of Petroleum Exporting Countries. A cartel of oil producing States established to influence international oil production and pricing. Current members include Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

Operator --- The individual, partnership, or firm that has control or management of operations on a lease. The operator may be the lessee, designated agent of the lessee, or holder of rights acquired by an approved assignment of the operating rights.

PAAS --- Production Accounting and Auditing System. An integrated system of both automated and manual applications operated by the Minerals Management Service to collect production and other operational data and to ensure that royalties are paid on 100 percent of reported production.

Petroleum --- Oil or gas obtained from the rocks of the earth by drilling down into a reservoir rock and piping the minerals to the surface.

RCD --- Royalty Compliance Division. A division of the Minerals Management Service responsible for coordinating and conducting audits of industry royalty reporting and payments practices for mineral leases on Federal and Indian lands.

Rent --- The amount paid on a periodic basis by the holder of a lease in payment for the right to use the land or resources for purposes established in the lease.

Report Month --- The month in which sales or royalty reports from lessees are received by the Minerals Management Service.

RIK --- Royalty-in-Kind. Under the Mineral Lands Leasing Act of 1920 and the Outer Continental Shelf Lands Act of 1953, the Federal Government, as lessor, may take part or all of its oil and gas royalties "in kind" (a volume of the commodity) as opposed to "in value" (cash). The Government sells the commodity at fair-market value to eligible refiners who do not have access to an adequate supply of crude oil at equitable prices.

RMAC --- Royalty Management Advisory Committee. The Committee, composed of representatives from States, Indian Tribes, and the minerals industry, addressed significant Royalty Management Program issues, and provided advice to the Secretary of the Interior on matters that concern participants in the royalty management process.

RMP --- Royalty Management Program. See Minerals Management Service.

Royalty --- Payment, in money or kind, of a stated share of production from mineral deposits by the lessee to the lessor. Royalty may be an established minimum, a sliding-scale, or a step-scale. A step-scale royalty rate increases by steps as the average production increases. A sliding-scale royalty rate is based on average production and applies to all production.

Secretary --- Secretary of the Interior.

Senate Select Committee --- Special Committee on Investigations of the Senate Select Committee on Indian Affairs. The Committee was authorized in

February 1988 to conduct a comprehensive investigation into the Federal Government's relationship with Indians.

STATSS --- State and Tribal Support System. A computer system application operated by the Minerals Management Service which provides States, Indian Tribes, the Bureau of Indian Affairs, and other users with access to Auditing and Financial System data.

Strategic Plan for Operations and Systems --- A plan developed by the Royalty Management Program to implement internal and constituent recommendations for improvements in the royalty program. The plan, employing both short-range and long-range goals, is composed of the following three documents: "Status Report on Program Accomplishments," "Business Systems Improvement Plan," and "Selected Options for Change."

Systems Improvement Team --- A team created by the Minerals Management Service to identify, design, and implement required improvements to Royalty Management Program automated systems.

USGS --- United States Geological Survey. A Federal Agency within the Department of the Interior that provides geologic, topographic, and hydrologic information that contributes to the effective management of the Nation's natural resources and that promotes the health, safety, and welfare of it's citizens. The information consists of maps, databases, and descriptions and analyses of the water, energy and mineral resources, land surface, underlying geologic structure, and the dynamic processes of the Earth.

Windfall Profit --- The excess of the removal price of a barrel of crude oil over the sum of the adjusted base price of the barrel and the severance tax adjustment for the barrel.

Work Panel --- Strategic Planning Work Panel. A panel charged by the Royalty Management Advisory Committee to review the Initiative for Indian Tribes and Allottees, and propose modifications to Royalty Management Program operations and systems.

WPT --- Windfall Profit Tax. An excise tax on a windfall profit from taxable crude oil removed from the premises after February 29, 1980. The tax applies only to production from wells in the United States or in U.S. possessions. The tax was repealed by Congress on August 23, 1988.

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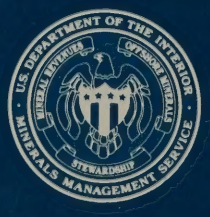
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